


(Counsel of record are identified  
at p. ii)

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EASTERN DISTRICT OF CALIFORNIA

BY 

UNITED STATES DISTRICT COURT  
EASTERN DISTRICT OF CALIFORNIA

UNITED STATES OF AMERICA

Plaintiff,

vs.

AEROJET-GENERAL CORPORATION,  
and CORDOVA CHEMICAL COMPANY,

Defendants.

CIVIL ACTION NO.

CIVS-86-0063-EJG

PEOPLE OF THE STATE OF  
CALIFORNIA EX REL. JOHN K.  
VAN DE KAMP AND ON BEHALF OF  
THE STATE DEPARTMENT OF  
HEALTH SERVICES AND THE  
HAZARDOUS SUBSTANCE ACCOUNT,  
AND ON BEHALF OF THE  
CALIFORNIA REGIONAL WATER  
QUALITY CONTROL BOARD,  
CENTRAL VALLEY REGION,

Plaintiffs,

vs.

AEROJET-GENERAL CORPORATION  
and CORDOVA CHEMICAL COMPANY,

Defendants.

CIVIL ACTION NO.

CIVS-86-0064-EJG

Partial Consent Decree  
As Modified Following Public Comment

1 ROGER J. MARZULLA  
 Assistant Attorney General  
 2 JERRY SCHWARTZ  
 Trial Attorney, Environmental Enforcement Section  
 3 Land and Natural Resources Division  
 United States Department of Justice  
 4 P.O. Box 7611  
 Ben Franklin Station  
 5 Washington, D.C. 20044  
 Telephone: (202) 633-4059  
 6

7 DAVID F. LEVI  
 United States Attorney  
 for the Eastern District of California  
 8 GREG HOLLOWS  
 Assistant United States Attorney  
 9 3305 Federal Building  
 650 Capitol Mall  
 10 Sacramento, California 95814  
 Telephone: (916) 551-2700  
 11

Attorneys for Plaintiff United States of America

12 JOHN K. VAN DE KAMP  
 Attorney General of the State of California  
 13 ANDREA ORDIN  
 Chief Assistant to the Attorney General  
 14 R.H. CONNETT  
 Assistant Attorney General  
 15 EDNA WALZ  
 Deputy Attorney General  
 16 Department of Justice of the State of California  
 17 1515 "K" Street  
 Sacramento, California 95814  
 18 Telephone: (916) 324-5366

Attorneys for Plaintiff State of California

19 LAWRENCE A. HOBEL  
 WARE & FREIDENRICH  
 20 A Professional Corporation  
 400 Hamilton Avenue  
 21 Palo Alto, California 94301-1809  
 Telephone: (415) 328-6561  
 22

23 WILLIAM L. BERRY, JR.  
 Vice President and General Counsel  
 24 Aerojet-General Corporation  
 10300 North Torrey Pines Road  
 25 La Jolla, California 92037  
 Telephone: (619) 455-8604  
 26

27 Attorneys for Defendants Aerojet-General Corporation and  
 Cordova Chemical Company  
 28

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1	UNITED STATES OF AMERICA	)	CIVIL ACTION NO.
2	Plaintiff,	)	CIVS-86-0063-EJG
3	vs.	)	
4	AEROJET-GENERAL CORPORATION	)	
5	and CORDOVA CHEMICAL COMPANY,	)	
6	Defendants.	)	
7	<hr/>		CIVIL ACTION NO.
8	PEOPLE OF THE STATE OF	)	CIVS-86-0064-EJG
9	CALIFORNIA, ET AL.	)	
10	Plaintiffs,	)	
11	vs.	)	
12	AEROJET-GENERAL CORPORATION	)	
13	and CORDOVA CHEMICAL COMPANY,	)	
14	Defendants.	)	
15	<hr/>		

14 WHEREAS, the United States of America ("United States")  
15 filed a Complaint on behalf of the Environmental Protection  
16 Agency in these consolidated civil actions;

17 WHEREAS, the United States in its Complaint alleges and  
18 seeks: (1) an injunction requiring Aerojet-General  
19 Corporation, an Ohio corporation, and Cordova Chemical  
20 Company, a California corporation, (collectively referred to  
21 as "Aerojet" or "Defendants") to abate the release or threat  
22 of release of hazardous substances from the Aerojet Site as  
23 hereafter defined and to remedy hazardous conditions  
24 allegedly presented to the public health, welfare and  
25 environment by the Aerojet Site; and (2) to reimburse the  
26 United States for response costs incurred by the United  
27 States in connection with the Aerojet Site;

28 WHEREAS, a portion of the relief sought against

1 Defendants by the United States would require Defendants to  
2 take actions to protect drinking water supplies and to take  
3 other actions designed to contain and/or mitigate and monitor  
4 the hazards allegedly presented by the Aerojet Site;

5 WHEREAS, a portion of the relief sought against  
6 Defendants by the United States would require Defendants to  
7 complete an investigation and study of the nature and extent  
8 of the public health and environmental problem allegedly  
9 presented by the Aerojet Site and to identify appropriate  
10 response action, if any, to be taken to abate alleged  
11 contamination from the Aerojet Site through the conduct of a  
12 Remedial Investigation/Feasibility Study, and to perform  
13 response actions necessary to remedy allegedly hazardous  
14 conditions presented by the Aerojet Site;

15 WHEREAS, the State of California ("State"), ex rel.  
16 John K. Van De Kamp on behalf of the Department of Health  
17 Services, the Hazardous Substance Account, and Regional Water  
18 Quality Control Board, Central Valley Region, filed a  
19 Complaint in these consolidated civil actions and seeks  
20 reimbursement of response costs expended and to be expended  
21 by the State in connection with the Aerojet Site;

22 WHEREAS, the State filed an action in the Superior Court  
23 of California, County of Sacramento, Case No. 286073, against  
24 Aerojet seeking injunctive relief, abatement and other  
25 equitable and civil monetary relief alleging, inter alia,  
26 that Aerojet has discharged and disposed of chemical wastes  
27 in violation of State law at its present and past Sacramento  
28 facilities;



1 WHEREAS, Aerojet denies any legal or equitable liability  
2 under any statute, regulation, ordinance or common law for  
3 any costs or damages caused by, or any legal or equitable  
4 obligations by reason of, the generation, handling, storage,  
5 treatment, transportation, disposal, or presence or actual or  
6 threatened release of hazardous substances at the Aerojet  
7 Site;

8 WHEREAS, the parties lodged with the Court on  
9 January 15, 1986 a consent decree providing for a settlement  
10 of this action;

11 WHEREAS, the Plaintiffs received public comments on the  
12 consent decree during a public comment period occurring after  
13 lodging with the Court;

14 WHEREAS, the Superfund Amendments and Reauthorization  
15 Act ("SARA"), Public Law No. 99-499, was enacted and became  
16 effective on October 17, 1986, and whereas SARA affects the  
17 conduct of the response actions required by this Decree at  
18 the Aerojet Site;

19 WHEREAS, the parties have withdrawn the lodged decree of  
20 January 15, 1986, and have negotiated this different partial  
21 consent decree ("Decree"), which partially resolves the  
22 litigation;

23 WHEREAS, the California Department of Fish and Game is  
24 resolving claims pursuant to this Decree and consents to be  
25 bound by it;

26 WHEREAS, to accomplish the objectives set forth in this  
27 Decree, the parties have agreed that it is in the public  
28 interest and in the interest of the parties for this Decree

1 to be issued without the necessity of protracted litigation  
2 and before the taking of any testimony and without the  
3 admission or final adjudication of any issue of fact or law;  
4 and

5 WHEREAS, the parties have agreed and stipulated that  
6 this Decree may be entered in these consolidated actions, and  
7 the parties have agreed to the terms conditional on approval  
8 of this Decree by the Court.

9 NOW, THEREFORE, IT IS ORDERED ADJUDGED AND DECREED:

10 1. JURISDICTION

11 The Court has jurisdiction over the parties and the  
12 subject matter of these consolidated actions.

13 2. DEFINITIONS

14 The following definitions shall apply to this Decree.

15 (A) Aerojet Site: The Aerojet Site is defined in  
16 Paragraph 5(A)(2).

17 (B) Air Force Plant 70: The tracts of land owned by  
18 the United States depicted in Exhibit I-1A to this Decree and  
19 specifically described in deeds recorded with the Sacramento  
20 County Recorder's Office in Book 3352 page 12.

21 (C) California Attorney General: The Attorney General  
22 of the State of California and any successor to its powers or  
23 functions.

24 (D) CERCLA: The Comprehensive Environmental Response,  
25 Compensation, and Liability Act (42 U.S.C. 9601 et seq.)  
26 (also known as "Superfund") as amended by the Superfund  
27 Amendments and Reauthorization Act ("SARA"), Public Law  
28 No. 99-499.

1           (E) Defendants or Aerojet: Defendants Aerojet-General  
2 Corporation, an Ohio Corporation, and Cordova Chemical  
3 Company, a California Corporation, or their successors in  
4 interest.

5           (F) DHS: California Department of Health Services and  
6 any successor to its powers or functions.

7           (G) EPA: United States Environmental Protection Agency  
8 and any successor to its powers or functions.

9           (H) Hazardous Substance:

10               (1) Any hazardous substance as defined in  
11 42 U.S.C. 9601(14);

12               (2) Any hazardous waste as defined in 42 U.S.C.  
13 6903(5);

14               (3) Any hazardous substance as defined in  
15 California Health & Safety Code § 25316;

16               (4) Any hazardous substance as defined in  
17 California Water Code § 13050 (p); or

18               (5) Any petroleum or petroleum fraction to the  
19 extent commingled with (1), (2), (3) or (4).

20           (I) McDonnell Douglas Property: The tract of land  
21 identified in Exhibit I-3 of approximately 3820 acres  
22 previously owned by McDonnell Douglas Corporation and its  
23 wholly-owned subsidiaries and deeded to Aerojet pursuant to  
24 grant deeds recorded with the Sacramento County Recorder's  
25 Office under Nos. 069076, 069077, 069078, and 099946.

26           (J) National Contingency Plan or NCP: The regulation  
27 promulgated pursuant to CERCLA Section 105(a) or (b). The  
28 current NCP is codified at 40 C.F.R. 300 et seq.

1 (K) Operable Unit: A discrete part of the entire  
2 response action that decreases a release, threat of release,  
3 or pathway of exposure.

4 (L) Plaintiffs: The United States and State of  
5 California.

6 (M) Regional Board: California Regional Water Quality  
7 Control Board, Central Valley Region, and any successor to  
8 its powers or functions.

9 (N) State Account: California Hazardous Substance  
10 Account and any successor to its powers or functions.

11 (O) State Cleanup and Abatement Account: State Water  
12 Pollution Cleanup and Abatement Account and any successor to  
13 its powers or functions.

14 (P) Source Area: Any location above the water table  
15 where soils or other materials potentially contain hazardous  
16 substances of such character or quantity as to warrant  
17 evaluation in a Remedial Investigation. Areas currently  
18 designated as source areas are listed in Exhibit III-1.

19 (Q) Submittals: Any report, plan, program or action of  
20 Plaintiffs or Aerojet pursuant to this Decree.

21 3. OBJECTIVE

22 The objective of the parties in entering into this  
23 Decree is to establish specified procedures and obligations  
24 toward achieving the goals delineated in CERCLA and the  
25 National Contingency Plan and addressing the factors set  
26 forth in California Health & Safety Code § 25356.1(c),  
27 respecting protection of public health, welfare and the  
28 environment from the release or threat of release of

1 hazardous substances at or from the Aerojet Site. To this  
2 end, the Decree provides, as set forth in the paragraphs to  
3 follow:

4 (A) Specified interim obligations, including:  
5 provisions addressing drinking water supply wells and the  
6 American River and provisions for the operation of ground  
7 water extraction/treatment facilities intended to intercept  
8 the off-site migration of plumes of chemicals within the  
9 ground water near the periphery of and/or beneath the  
10 Exhibit I-1 land, and to extract and treat the ground water.

11 (B) For completion of a Remedial Investigation/  
12 Feasibility Study to determine the nature and extent of  
13 public health and environmental problems, if any, presented  
14 by the release or threat of release of hazardous substances  
15 at or from the Aerojet Site and to develop and evaluate  
16 remedial alternatives so it can subsequently be determined  
17 which, if any, is necessary to remedy public health or  
18 environmental problems identified.

19 4. GENERAL PRINCIPLES

20 (A) Aerojet shall employ sound scientific, engineering  
21 and construction practices in performing its obligations  
22 under this Decree. Each Aerojet written submittal shall bear  
23 certifications, as appropriate, pursuant to Chapters 7 and  
24 12.5 of the California Business & Professions Code.

25 (B) The work to be done by Aerojet pursuant to  
26 Paragraphs 5, 8 and 24 shall, to the greatest extent  
27 possible, be in accordance with the provisions of the NCP.

28 (C) Section 105(b) of CERCLA, 42 U.S.C. 9605(b)

1 provides, inter alia, that the President shall revise the  
2 National Contingency Plan (NCP) within 18 months after the  
3 enactment of the Superfund Amendments and Reauthorization Act  
4 of 1986 (the "SARA change"). CERCLA further provides that  
5 the President may, from time to time, revise and republish  
6 the NCP ("NCP changes"). Within a reasonable time following  
7 the promulgation of any revision to the NCP, the parties will  
8 meet to attempt to resolve whether and to what extent under  
9 the circumstances the new changes will affect the schedule or  
10 content of future deliverables under Paragraph 5.

11 If the SARA change has not been promulgated six months  
12 before the scheduled submission of any alternatives  
13 development report, the parties will meet to resolve whether  
14 and to what extent there should be modifications in the  
15 schedule for submission of the Phase I RI/FS Report and  
16 subsequent activities, and discuss how Aerojet shall complete  
17 alternatives development reports due prior to the  
18 promulgation of the SARA change.

19 Any dispute pursuant to this Subparagraph (C) will be  
20 resolved pursuant to Paragraph 20 (Dispute Resolution).

21 (D) Nothing in this Decree shall be deemed to authorize  
22 Aerojet to violate any law or regulation applicable to it  
23 during the performance of this Decree, but this  
24 Subparagraph (D) does not establish legal applicability nor  
25 does it create any rights or claims that have been resolved  
26 pursuant to Paragraph 22.

27 (E) The Exhibits to this Decree are incorporated as a  
28 part of this Decree by this reference.

(F) Performance of any requirement or obligation by either defendant shall satisfy the obligation or requirement of the other defendant.

5. REMEDIAL INVESTIGATION/FEASIBILITY STUDY

(A) Pursuant to this Paragraph, Aerojet shall complete a Remedial Investigation/Feasibility Study (RI/FS) consistent with the NCP and addressing the factors set forth in California Health and Safety Code Section 25356.1(c):

(1) As to any release or threat of release of hazardous substances, including migration of such substances from discharges occurring before the effective date of the Decree at

(a) the land described in Exhibit I-1 to this Decree, which land is more particularly described in Documents O.R. 624192/0060, O.R. 650301/0000, O.R. 004062/0059, O.R. 850618/1118, O.R. 650602/0000, O.R. 650606/0001, O.R. 860103/0138, O.R. 860210/0581, recorded with the Sacramento County Recorder (sometimes referred to in this Decree as the "Aerojet-General Operating Plant"), and the lands described in Exhibits I-1A and I-2 to this Decree, except to the extent that:

(i) the release or threat of release results from activities of third parties (not acting as agents of or in concert with Aerojet while undertaking such activities) on any portion of the County Off-Highway Vehicle Park at a time when Aerojet did not own, operate or lease such portion and the harm to public health or the environment resulting from the release or threat of release is divisible from the harm, if any, resulting from Aerojet's activities on

1 such land; or

2 (ii) the release or threat of release is  
3 from a discharge from Aerojet Deep Injection Well No. 1 or  
4 No. 2 and was not into the Mehrten formation or any formation  
5 above the Mehrten formation.

6 (b) any location on the land described in  
7 Exhibit I-3 (McDonnell-Douglas Property) to the extent that

8 (i) Aerojet generated, transported,  
9 disposed of, treated, or arranged for treatment or disposal  
10 of hazardous substances at the location; or

11 (ii) Aerojet owned, operated or leased  
12 the area at the time of disposal of hazardous substances at  
13 the location;  
14 except to the extent that the release or threat of release  
15 results from activities of third parties (not acting as  
16 agents of or in concert with Aerojet while undertaking such  
17 activities) at the location and the harm to public health or  
18 the environment resulting from the release or threat of  
19 release is divisible from the harm, if any, resulting from  
20 Aerojet's activities at such location.

21 (c) any location on Exhibit I-4 land to the  
22 extent that Aerojet contributed hazardous substances at the  
23 location and

24 (i) the total amount of hazardous  
25 substances contributed by potentially responsible parties,  
26 excluding Aerojet, is de minimis as provided in Section  
27 122(g)(1)(A) of CERCLA; and

28 (ii) Aerojet or Plaintiffs discovers such  
PARTIAL CONSENT DECREE



1 release or threat of release of hazardous substances while  
2 taking action pursuant to this Decree.

3 (2) The Aerojet Site is defined as that land for  
4 which Aerojet is responsible pursuant to Subparagraph 5(A)(1).

5 (B)(1) Where other hazardous substances are within an  
6 Aerojet plume, Aerojet's responsibility for an action under  
7 this Paragraph shall extend to such other hazardous  
8 substances within the Aerojet plume to the extent the  
9 presence of such substances in the Aerojet plume results in  
10 harm to public health or the environment not divisible from  
11 the harm, if any, resulting from the Aerojet plume.

12 (2) For purposes of this Subparagraph, "Aerojet  
13 plume" means hazardous substances migrating in ground water  
14 from a source for which Aerojet is responsible pursuant to  
15 Subparagraph 5(A)(1) and "other hazardous substances" means  
16 hazardous substances migrating in ground water from a source  
17 for which Aerojet is not responsible pursuant to Subparagraph  
18 5(A)(1).

19 (C) Aerojet shall conduct the Remedial Investigation  
20 (RI) to determine the nature and extent of public health or  
21 environmental problems, if any, presented by the release or  
22 threat of release of hazardous substances into soils, surface  
23 waters, sediments, ground water and air, addressing migration  
24 of hazardous substances therefrom, if any, including  
25 migration into the American River. With respect to source  
26 areas, the RI will address, at a minimum, those areas in  
27 Exhibit III-1. Exhibit III-2 is a list of potential source  
28 areas which Aerojet and Plaintiffs have not, at the time of

1 entering into this Decree, agreed should be on the Exhibit  
2 III-1 list. The Phase I RI/FS Workplan shall identify those  
3 Exhibit III-2 areas Aerojet proposes be addressed in the RI,  
4 explaining why the remaining Exhibit III-2 areas will not be  
5 addressed. Based upon information developed in the RI,  
6 Aerojet shall conduct a Feasibility Study (FS) to develop and  
7 evaluate remedial alternatives, so it can subsequently be  
8 determined which, if any, is necessary to remedy public  
9 health or environmental problems identified in the RI.

10 (D) Aerojet shall complete the RI/FS pursuant to this  
11 Paragraph 5 by implementing the RI/FS Program Plan ("Program  
12 Plan") set forth in Exhibit II and the various deliverables  
13 pursuant to that Program Plan.

14 (E) Aerojet shall implement the work in accordance with  
15 the schedule set forth in the Program Plan and in the various  
16 deliverables prepared pursuant to that Program Plan.

17 (F) Aerojet may, from time to time, seek changes in the  
18 work to be performed pursuant to the approved Phase I RI/FS  
19 Workplan, any approved Stage 2 Sampling Plan, the approved  
20 GET Effectiveness Workplan or the approved Phase II RI/FS  
21 Workplan as follows:

22 (1) Except as provided in Subparagraph 5(F)(2),  
23 Aerojet shall request such change in writing. If Plaintiffs  
24 do not indicate written approval of the request within thirty  
25 (30) days of receipt of the request or other period of time  
26 to which Plaintiffs and Aerojet agree, it shall be deemed  
27 disapproved; or

28 (2) Based on the exigencies of the situation,

1 Aerojet may make its request for a change orally and seek  
2 Plaintiffs' approval within a specified period of time. If  
3 Plaintiffs do not approve the request, Aerojet may proceed  
4 with the change subject to Plaintiffs' subsequent disapproval  
5 of the unapproved change. All oral communications regarding  
6 changes shall be confirmed in writing within five (5) days.  
7 Any dispute respecting a change will be resolved pursuant to  
8 Paragraph 20 (Dispute Resolution).

9 (G) Plaintiffs may also determine during the course of  
10 reviewing analytical data or reports that a change should be  
11 made to approved work under the Phase I RI/FS Workplan, any  
12 Stage 2 Sampling Plan, the GET Effectiveness Workplan or the  
13 Phase II RI/FS Workplan, including, without limitation,  
14 additional data collection or evaluation. In such case,  
15 Plaintiffs shall notify Aerojet in writing. If Plaintiffs  
16 and Aerojet agree, Aerojet shall perform the change pursuant  
17 to a schedule proposed by Aerojet and approved by  
18 Plaintiffs. Any dispute respecting a change will be resolved  
19 pursuant to Paragraph 20 (Dispute Resolution).

20 (H) If, before approval of the Final Phase II RI/FS  
21 Report, Aerojet or Plaintiffs discover a potential source  
22 area on the Aerojet Site not listed in Exhibit III, the  
23 discovering party shall notify the others of the discovery.  
24 Plaintiffs or Aerojet may then propose that the newly  
25 discovered potential source area be added to Exhibit III-1.  
26 If the parties are unable to agree, the provisions of  
27 Paragraph 20 (Dispute Resolution) shall apply. After a  
28 source area is added to Exhibit III-1, Aerojet shall submit

1 to Plaintiffs for approval, in accordance with the provisions  
2 of Subparagraph 5(F)(1), any change in work appropriate to  
3 address the source area.

4 (I) This Subparagraph shall apply to deliverables  
5 required in the Program Plan to be submitted to Plaintiffs  
6 for review and approval except the Phase II RI/FS Report.  
7 Within ninety (90) days of receipt of the deliverable,  
8 Plaintiffs shall notify Aerojet in writing of their approval  
9 or disapproval. If Plaintiffs disapprove, the notice shall  
10 specify all deficiencies, and Aerojet shall, within sixty  
11 (60) days of receipt of such notice (or a longer period if  
12 agreed), resubmit the deliverable which will address each  
13 deficiency identified by Plaintiffs with revisions or a  
14 written statement why revisions were not made. If Plaintiffs  
15 disapprove the deliverable as resubmitted, the provisions of  
16 Paragraph 20 (Dispute Resolution) shall apply.

17 (J) This Subparagraph shall apply to deliverables that  
18 are required in the Program Plan to be submitted to  
19 Plaintiffs for review and comment. Within sixty (60) days of  
20 receipt, Plaintiffs shall notify Aerojet in writing of any  
21 comments respecting such deliverable.

22 (K) This Subparagraph shall apply to the Phase II RI/FS  
23 Report.

24 (1) Within sixty (60) days of receipt of the  
25 Phase II RI/FS Report or longer if agreed to by the parties  
26 as necessary for review, Plaintiffs shall cause it to be  
27 subject to formal public comment as to its adequacy and  
28 completeness. The Phase II RI/FS Report shall not make a

1 recommendation as to the appropriate remedial action for the  
2 Aerojet Site.

3 (2) Within ninety (90) days of the close of the  
4 public comment period, or a longer time if necessary to  
5 respond to public comment, Plaintiffs shall notify Aerojet in  
6 writing of their approval or disapproval of the Report as to  
7 its adequacy and completeness. If Plaintiffs disapprove, the  
8 notice shall specify all deficiencies, and Aerojet shall,  
9 within ninety (90) days of receipt of notice (or a longer  
10 period if agreed), resubmit the Phase II RI/FS Report  
11 addressing each deficiency identified with revisions or a  
12 written statement why revisions were not made.

13 Any dispute respecting the adequacy or completeness of  
14 the Phase II RI/FS Report will be resolved pursuant to  
15 Paragraph 20 (Dispute Resolution).

16 (3) Upon approval of the Phase II RI/FS Report  
17 pursuant to this Subparagraph, the obligations of Aerojet  
18 under this Paragraph terminate. Selection of remedial action  
19 is not determined under the provisions of this Decree.

20 6. DRINKING WATER SUPPLY WELLS AND THE AMERICAN RIVER

21 Aerojet shall address drinking water supply wells and  
22 the American River in accordance with the provisions  
23 contained in Exhibits IV and V respectively.

24 7. GROUND WATER EXTRACTION/TREATMENT FACILITIES

25 Aerojet shall operate ground water extraction/treatment  
26 facilities ("GET" facilities) in accordance with the  
27 provisions contained in Exhibit VI.

1     **8.     COMMUNITY RELATIONS**

2           (A) Aerojet acknowledges that Plaintiffs intend to  
3     conduct a community relations program to advise the public on  
4     this Decree and its implementation, and to facilitate public  
5     comment on the Decree and various documents. Aerojet will  
6     assist Plaintiffs in their community relations effort by  
7     providing information so far as is consistent with  
8     Paragraph 18 below. Plaintiffs intend to carry out their  
9     community relations program in accordance with a Community  
10    Relations Plan (CRP), which may be revised from time to time  
11    based on changing community needs. The CRP will serve as a  
12    workplan for Plaintiffs' community relations program and will  
13    specify the measures Plaintiffs intend to take: 1) to  
14    apprise the public of site activities; 2) to provide the  
15    opportunity for on-going dialogue between Plaintiffs and the  
16    community; and 3) to describe ways for the public to make  
17    comments, as described in Subparagraph 8(C), on documents  
18    submitted to Plaintiffs for comment or approval. The CRP  
19    will provide, among other things, for informational mailings  
20    to the public, periodic public meetings and briefings, and  
21    provisions for at least one document repository for public  
22    access to submittals by the parties under this Decree.  
23    Plaintiffs will deliver documents to the information  
24    repositories as specified in the CRP. The CRP will also  
25    detail how the public can obtain access to the documents and  
26    information available to the public pursuant to Paragraph 23  
27    of this Decree.

28           (B) There will be a 60-day formal public comment

1 period respecting the adequacy and completeness of the  
2 Phase II RI/FS Report pursuant to Subparagraph 5(K)(1).  
3 Plaintiffs, following the conclusion of the public comment  
4 period, will prepare a written responsiveness summary, which  
5 compiles the specific comments received from the public and  
6 sets forth Plaintiffs' response to the comments.

7 (C) Plaintiffs will also accept informal public  
8 comments throughout the implementation of this Decree.  
9 Informal public comments are comments regarding any matter  
10 not subject to formal comment as described in Paragraph 8(B)  
11 above. Although Plaintiffs are not required to respond to  
12 the informal comments in writing, Plaintiffs intend to  
13 examine any applicable informal comments when preparing their  
14 response to Aerojet on any document or proposal submitted to  
15 Plaintiffs for approval or comment.

16 (D) Plaintiffs have formed a Community Work Group (CWG)  
17 to facilitate ongoing dialogue among interested community  
18 members, Plaintiffs and Aerojet regarding activities  
19 conducted pursuant to this Decree and decisions pending  
20 before the parties. The CRP addresses the structure of the  
21 CWG, the frequency of meetings, and the provisions for  
22 administrative and clerical support.

23 9. FINANCIAL ASSURANCES

24 (A) Within sixty (60) days after the effective date of  
25 this Decree, Aerojet shall obtain from GenCorp the Guarantee  
26 contained in Exhibit VII (hereinafter "Guarantee").  
27 Plaintiffs have entered into this Decree on the condition  
28 that Aerojet obtain this Guarantee from GenCorp.

1 (B) Neither GenCorp's agreement to the Guarantee nor  
2 any action taken thereunder shall constitute for GenCorp an  
3 admission of liability, an admission of fact or evidence of  
4 any violation of law or regulation.

5 (C) Nothing contained in this Paragraph or Exhibit VII,  
6 including any amounts referred to therein, limits or defines  
7 Aerojet's obligations under this Decree, except respecting  
8 financial assurance.

9 10. FORCE MAJEURE

10 Aerojet shall not be in violation of this Decree if  
11 Aerojet's performance is prevented or delayed by events which  
12 constitute a force majeure. For purposes of this Decree, a  
13 force majeure is defined as any event arising from causes  
14 beyond the control of Aerojet which cannot be prevented or  
15 overcome by due diligence and which delays or prevents  
16 performance required by this Decree. Financial inability of  
17 Aerojet to comply with the requirements of this Decree shall  
18 not be considered a force majeure. In the event of a force  
19 majeure, the time for performance of the activity delayed by  
20 the force majeure shall be extended for the time period of  
21 the delay attributable to the force majeure. The time for  
22 performance of any activity dependent on the delayed activity  
23 shall be similarly extended, except to the extent that such  
24 dependent activity can reasonably be implemented without  
25 completion of the delayed activity.

26 Aerojet must notify Plaintiffs in writing within ten  
27 (10) days of any event which it knows or should know  
28 constitutes a force majeure. Failure by Aerojet to so notify



1 Plaintiffs under this Paragraph shall be grounds for denying  
2 the relief otherwise available under this Paragraph as to the  
3 delay in question. Such notice shall estimate the  
4 anticipated length of delay, including necessary  
5 demobilization and remobilization, identify its cause, the  
6 measures taken and expected to be taken to prevent or  
7 minimize the delay, and the estimated timetable by which  
8 those measures will be implemented.

9 Plaintiffs shall respond to Aerojet's written notice of  
10 a force majeure within twenty (20) days of receipt. If  
11 Plaintiffs and Aerojet agree upon a time extension or  
12 extensions within such a period, the time limit(s) shall be  
13 modified accordingly. In those instances where they cannot  
14 agree within such 20-day period, the dispute shall be  
15 resolved pursuant to Paragraph 20 (Dispute Resolution). The  
16 burden shall be on Aerojet to prove the existence of a force  
17 majeure, its consequence, and the reasonableness of an  
18 extension of time. If Aerojet fails to refer the dispute to  
19 the Court within thirty (30) days of Plaintiffs' receipt of  
20 Aerojet's written notification, or within such longer period  
21 as may be agreed, Aerojet shall be deemed to have waived the  
22 right to have the delay declared a force majeure.

23 If a force majeure precludes performance of an activity  
24 or dependent activity instead of merely delaying it, and if  
25 Plaintiffs and Aerojet fail to agree on substitute activity,  
26 such dispute shall be resolved pursuant to Paragraph 20  
27 (Dispute Resolution).

11. RESTRICTIONS ON USE AND TRANSFER OF LAND

(A) Within fifteen (15) days after the effective date of this Decree, Aerojet shall present to the Court for execution an "Order re: Partial Consent Decree." The Order shall be recorded with the office of the Sacramento County Recorder ("Recorder") within fifteen (15) days after issuance. The Order re: Partial Consent Decree shall state:

"There is a Partial Consent Decree ("Decree") which affects:

(1) the land described in Exhibit I-1 to the Decree ("Exhibit I-1 land"); (2) the land identified in Exhibit I-5 to the Decree; (3) portions of Exhibit I-1 and Exhibit I-5 land described in Exhibits I-6 and I-7. Exhibits I-1, I-5, I-6 and I-7 to the Decree are attached and incorporated as part of this Order.

The Decree was entered on \_\_\_\_\_, 19\_\_\_\_, in the consolidated actions United States, et al. v. Aerojet-General Corporation, et al., No. CIVS 86-0063-EJG, and People of the State of California ex rel John K. Van De Kamp on behalf of Department of Health Services and Regional Water Quality Control Board, Central Valley Region v. Aerojet-General Corporation et al., No. CIVS 86-0064-EJG, in the United States District Court for the Eastern District of California, and a copy of the Decree can be found in the

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1 files of that court. The Decree contains a restriction  
2 on use and transfer of the property in Paragraph 11 as  
3 follows:"

4 The Order re: Partial Consent Decree shall then quote the  
5 entirety of Subparagraphs 11(B) through 11(N).

6 (B) Aerojet will not make any of the following uses on  
7 any land described in Exhibit I-6 ("Exhibit I-6 land")  
8 without first giving notice to and obtaining approval of DHS  
9 or, alternatively, a determination by the Court favorable to  
10 Aerojet pursuant to Subparagraph 11(D).

11 (1) Build or use any structure as a residence,  
12 hospital for humans, school for persons under 21 years of  
13 age, a day care center for children, or any permanently  
14 occupied human habitation other than those used for  
15 industrial purposes.

16 (2) Any new use of the land other than the use,  
17 modification, or expansion of an existing industrial or  
18 manufacturing facility or complex.

19 (C) Aerojet shall not construct any building or  
20 structure on any land described in Exhibit I-7 ("Exhibit I-7  
21 land") if the construction requires excavation, grading or  
22 removal of more than 10 cubic yards of soil, without first  
23 giving notice to and obtaining prior approval of DHS or,  
24 alternatively, a determination of the Court favorable to  
25 Aerojet pursuant to Subparagraph 11(D). The restrictions in  
26 this Subparagraph shall not apply to: (1) maintenance  
27 activities, (2) activities taken within an existing building  
28 or structure to the extent that such activities are necessary

1 to change such building or structure to meet Aerojet's  
2 operational needs, or (3) activities undertaken pursuant to  
3 provisions of this Decree.

4 (D) The notice required by Subparagraphs 11(B) and  
5 11(C) shall be either by personal service received, or by  
6 registered mail postmarked, not less than 45 days prior to  
7 the beginning of the proposed use or construction. Aerojet  
8 may proceed with the proposed use or construction and shall  
9 be deemed to have obtained the approval of DHS unless, within  
10 30 days following receipt of such notice, the California  
11 Attorney General files an objection in the Court to the use  
12 or construction on the ground that it may cause a significant  
13 hazard to present or future public health by reason of  
14 discharges of hazardous substances occurring before the  
15 effective date of this Decree, or that it will interfere with  
16 the performance of Aerojet's obligations pursuant to this  
17 Decree. Filing of the objection shall constitute a dispute  
18 to be resolved pursuant to Paragraph 20 (Dispute Resolution)  
19 and the burden of proof shall be on Plaintiffs.

20 (E) Aerojet will not grant any possessory interest in  
21 the land described in Exhibits I-1 or I-5 ("Exhibit I-1 or  
22 I-5 land") without first giving notice to the California  
23 Attorney General and the United States, accompanied by a  
24 statement of the name of the grantee, the intended uses of  
25 the land contemplated by the grantee, and Aerojet's  
26 obligations, if any, to be performed by the grantee. The  
27 notice shall be either by personal service received, or by  
28 registered mail postmarked, not less than sixty (60) days

1 prior to the date of the proposed grant. Aerojet may proceed  
2 with the proposed grant unless within thirty (30) days  
3 following the receipt of such notice, the United States or  
4 the California Attorney General files an objection in the  
5 Court to the grant on the ground that it would interfere with  
6 the performance of Aerojet's obligations pursuant to this  
7 Decree. Filing of an objection shall constitute a dispute to  
8 be resolved pursuant to Paragraph 20 (Dispute Resolution) and  
9 the burden of proof shall be on Plaintiffs.

10 (F) In the event of a grant subject to the restrictions  
11 of this Paragraph, all of Aerojet's obligations pursuant to  
12 this Decree shall continue to be met by Aerojet, or, subject  
13 to Plaintiffs' approval, by one or more grantees. Plaintiffs  
14 shall either approve or disapprove the assumption of the  
15 obligation by a grantee within sixty (60) days of receipt of  
16 written notice seeking such assumption. Any dispute  
17 regarding the assumption of any obligation shall be resolved  
18 pursuant to Paragraph 20 (Dispute Resolution). The issue  
19 before the Court shall be whether the assumption by the  
20 grantee would or would not have a material adverse effect on  
21 the fulfillment of the requirements of the Decree proposed  
22 for assumption, including the adequacy of financial  
23 assurance. A copy of Plaintiffs' approval of the assumption  
24 or an order from the Court that Plaintiffs approved the  
25 assumption will, when recorded, conclusively establish that  
26 the obligation was assumed.

27 (G) A grant of possessory interest in Exhibit I-1 or  
28 I-5 land shall contain a notice stating that such land is a

1 subject of this Decree and setting forth the caption of the  
2 case, case number, and court having jurisdiction herein. No  
3 grant of Exhibit I-1 or I-5 land may be made by Aerojet or  
4 its successors unless it contains a covenant that the grantee  
5 and any successor shall comply with the restrictions of this  
6 Paragraph, that the grantee will not interfere with the  
7 performance of obligations or exercise of rights pursuant to  
8 this Decree, and that the grantee will subject itself to the  
9 jurisdiction of this Court in this action to enforce the  
10 restrictions of this Paragraph. The covenant shall be in  
11 full force and effect until such time as Aerojet or a  
12 successor records with the Recorder a waiver or waivers by  
13 Plaintiffs of the restrictions in a form acceptable for  
14 recording, or an order of the Court eliminating the  
15 restrictions.

16 (H) DHS may propose the addition of a portion of  
17 Exhibit I-1 or I-5 land to Exhibit I-6 or Exhibit I-7 until  
18 the Phase II RI/FS report has been approved pursuant to  
19 Subparagraph 5(L). If Plaintiffs and Aerojet cannot agree on  
20 any proposed addition, the dispute shall be resolved pursuant  
21 to Paragraph 20 (Dispute Resolution) and the Plaintiffs shall  
22 have the burden of proving the need of the addition. The  
23 State shall record with the Recorder a court order  
24 incorporating additions to Exhibit I-6 or Exhibit I-7 land  
25 pursuant to this Subparagraph (H) within 60 (sixty) days of  
26 issuance. Any such addition shall not be effective as to any  
27 subsequent grantee unless the order has been timely recorded  
28 with the Recorder.

1           (I) The Phase II RI/FS Report will address the  
2 appropriateness of deed restrictions.

3           (J) This Paragraph imposes no restrictions on grants of  
4 possessory interest in land by Aerojet made under leases,  
5 agreements or other conveyances existing as of the effective  
6 date of this Decree, to the extent that the imposition of  
7 such restrictions would violate or change the provisions of  
8 any such conveyance.

9           (K) At any time, Aerojet or any grantee or successor  
10 may petition the Court for removal of the restrictions stated  
11 in any or all subparagraphs of this Paragraph as to any or  
12 all lands, and any such restriction shall be ordered removed  
13 unless the Court finds that, as to Exhibit I-6 or Exhibit I-7  
14 land, there is a need to retain such restriction to prevent a  
15 significant hazard to present or future public health by  
16 reason of discharges of hazardous substances occurring before  
17 the effective date of this Decree, or that as to Exhibit I-1  
18 or I-5 land, there is need to retain it to prevent  
19 interference with the performance of Aerojet's obligations  
20 pursuant to this Decree.

21           (L) Recording by Aerojet or a successor with the  
22 Recorder of an approval, order or notice specified below in  
23 this Subparagraph (L) shall conclusively establish that  
24 Aerojet and any subsequent grantee is free of any  
25 restrictions under the Order released by said approval, order  
26 or notice:

27           (1) Approval by DHS or Plaintiffs, as appropriate,  
28 of a grant, use, or construction;

1           (2) An order of the Court permitting such grant,  
2 use, or construction;

3           (3) A notice that Plaintiffs do not object to the  
4 grant, use or construction (notice of non-objection), with  
5 proof of service of such notice on Plaintiffs, to which  
6 notice of non-objection Plaintiffs do not, within 45 days of  
7 service, record in the office of the County Recorder a notice  
8 that an objection had been timely made;

9           (4) A notice that the obligations have terminated  
10 pursuant to Paragraph 26 of the Decree to which notice  
11 Plaintiffs do not, within twenty (20) days of service, record  
12 a notice that such obligations have not so terminated; or

13           (5) A Court Order that the obligations have  
14 terminated pursuant to Paragraph 26 of the Decree.

15           (M) As used in this Paragraph, "grantee" includes  
16 "lessee" and "grant" includes "lease."

17           (N) Wherever it is provided in this Paragraph that  
18 notice shall be given to DHS, it shall be sent to the  
19 person(s) on the most recent "Designation of person(s) to be  
20 notified regarding restrictions on Aerojet use and transfer  
21 of land" as provided to Aerojet by DHS.

22   12. STIPULATED PENALTIES

23           (A) In the event that Aerojet fails to comply with the  
24 time requirements (including, but not limited to, the  
25 schedule for collecting and analyzing samples and the  
26 notification requirements) specified in Paragraph 6 and  
27 Exhibits IV and V, Aerojet shall pay promptly following  
28 written demand by Plaintiffs \$5000 for each day of each



1 violation after the 7th day of noncompliance and \$10,000 for  
2 each day of each violation after the 30th day of  
3 noncompliance.

4 (B) In the event that Aerojet fails to comply with any  
5 of the time requirements specified below, Aerojet shall pay  
6 promptly following written demand by Plaintiffs, \$4000 for  
7 each day of each violation after the 7th day of  
8 noncompliance, and \$8000 for each day of each violation after  
9 the 30th day of non-compliance with:

10 (1) The time requirements for submittal of:

11 Part 1 GET Effectiveness Report  
12 Part 2 GET Effectiveness Report  
13 Scoping Report  
14 Phase I RI/FS Workplan  
15 Stage 1 Reports and Stage 2 Sampling Plans  
16 Exposure Pathway Report  
17 Exposure Point Concentration Report  
18 Phase I RI/FS Report  
19 Phase II RI/FS Workplan  
20 Phase II RI/FS Report

21 (2) The time requirements for submittal of  
22 Facility Reports, Development Report,  
23 monitoring plans, and monitoring data for GET  
24 Facilities as required by Paragraph 7 and  
25 Exhibit VI.

26 (3) The time requirements for actions required by  
27 Subparagraphs 11(A) and 11(E).

28 (C) Aerojet shall be deemed to have complied with a  
time requirement under this Paragraph if its submittal or  
performance of the required action is made in accordance with  
generally accepted engineering or scientific practices on or  
before the time specified for the submittal or performance.  
Should Aerojet fail to comply with a time requirement, the  
period of noncompliance shall terminate upon Aerojet's  
submittal or performance of the required action as set forth

1 above. This Subparagraph does not apply to Subparagraphs  
2 12(D) or 12(E).

3 (D) In the event that Aerojet discharges water from a  
4 GET Facility in violation of the 24-hour discharge  
5 concentration limitations in Subparagraph (B) in Exhibit VI,  
6 Aerojet shall pay on written demand by Plaintiffs \$1000 for  
7 each facility for each day one or more exceedances is  
8 measured and present at the facility. Notwithstanding  
9 Subparagraph 20(C)(3), if Aerojet contends that a measurement  
10 did not reflect the actual effluent concentration, Aerojet  
11 shall have the burden of so proving. In the event that  
12 Aerojet discharges water from a GET facility in violation of  
13 the monthly average concentration limitations in  
14 Subparagraph B of Exhibit VI, Aerojet shall pay on written  
15 demand by Plaintiffs \$2500 for each facility for each month  
16 one or more exceedances is computed at that facility.

17 (E) In the event that Aerojet fails to obtain approval  
18 prior to making material changes at a GET facility as  
19 required by Subparagraph (C)(2)(a) in Exhibit VI, Aerojet  
20 shall pay promptly following written demand by Plaintiffs  
21 \$2500 for each facility for each day of operation under one  
22 or more unapproved material changes. This penalty provision  
23 shall not apply to material changes made pursuant to  
24 Subparagraph (C)(2)(b) in Exhibit VI or as respects  
25 concentration of chemicals in treated ground water.

26 (F) Plaintiffs shall promptly notify Aerojet of any  
27 noncompliance deemed to warrant the imposition of stipulated  
28 penalties because of failure to meet the standard set forth

1 in Subparagraph (C), and the period of noncompliance shall  
2 not commence until such notice is received. Disapproval of  
3 any submittal or performance and identification of any  
4 deficiencies shall not be cause for the assessment of  
5 penalties unless the submittal or performance fails to meet  
6 the standard set forth in Subparagraph 12(C).

7 (G) If Aerojet disputes the imposition of penalties  
8 sought by Plaintiffs, the issue shall be resolved pursuant to  
9 Paragraph 20 (Dispute Resolution) and Aerojet shall not be  
10 obligated to pay except upon resolution of the dispute  
11 adverse to Aerojet.

12 (H) Amounts payable pursuant to this Paragraph shall be  
13 paid as follows:

14 (1) One-half to the United States - paid to:  
15 EPA - Hazardous Substance Superfund; and

16 (2) One-half to the State - paid as follows:

17 (a) two-thirds to the State Account; and

18 (b) one-third to the State Cleanup and  
19 Abatement Account

20 (I) The penalties specified in this Paragraph shall be  
21 in lieu of civil penalties that may otherwise be available to  
22 Plaintiffs and shall be in addition to and shall not exclude  
23 the use of non-monetary remedies or sanctions, if any, which  
24 may be available to Plaintiffs for the violations specified.

25 (J) Nothing in this Paragraph shall restrict  
26 Plaintiffs' rights to obtain remedies or sanctions Plaintiffs  
27 may have against Aerojet for violations not specified above.

### 28 13. OVERSIGHT COSTS

(A) Aerojet shall pay all qualified oversight costs in  
PARTIAL CONSENT DECREE

1 accordance with the requirements of this Paragraph.

2 (B) Qualified oversight costs are the costs incurred by  
3 Plaintiffs before termination of Aerojet's obligations  
4 pursuant to Paragraph 26(B) that are not inconsistent with  
5 the NCP as applied to this Decree for the oversight of  
6 Aerojet's performance of the tasks required under this Decree.

7 (C) While EPA, DHS, and Regional Board each will  
8 conduct its own evaluation of Aerojet's activities conducted  
9 and documents submitted pursuant to this Decree, Plaintiffs  
10 shall make all reasonable efforts to avoid unnecessary  
11 duplication during their oversight of Aerojet's performance.

12 (D) Of the qualified oversight costs paid by Aerojet:

13 (1) No more than 12% of the total oversight costs  
14 in any year may be incurred by Plaintiffs for laboratory  
15 analysis, soil boring and well drilling.

16 (2) No more than \$150,000 shall be payable for  
17 Plaintiff's development of the Risk Characterization Report.

18 (E) (1) Aerojet shall not be obligated to pay more  
19 than the sum calculated below to Plaintiffs for qualified  
20 oversight costs for the period between lodging of the Decree  
21 and the start of the first full federal fiscal year after  
22 entry of the Decree. The sum is calculated as follows:

23 
$$\frac{\text{No. of months between entry and}}{12}$$
  
24 
$$[\$625,000 \times (\text{first full federal fiscal year})] + \$120,000$$

25 This payment includes reimbursement of costs incurred between  
26 the date of lodging and the effective date of the Decree.

27 (2) For each full federal fiscal year after the  
28 first year, Aerojet shall not be obliged to pay more than

1 \$625,000 (1988 dollars) for qualified oversight costs as  
2 adjusted for inflation/deflation pursuant to the Consumer  
3 Price Index -- All Items, but not more than a 4% change in  
4 any year.

5 (3) If Plaintiffs' qualified oversight costs are  
6 less than the yearly limitation specified in Subparagraphs  
7 (E)(1) or (E)(2) in any given year, the remaining balance of  
8 the limitation shall be added to increase the succeeding  
9 year's limitation, without interest.

10 (4) If Plaintiffs' oversight costs exceed the per  
11 year limitations specified in Subparagraphs (E)(1) or (E)(2),  
12 then the overage shall be rolled over to the next year  
13 without interest until all qualified oversight costs are  
14 paid, but amounts paid in any year will remain subject to the  
15 per year limitation.

16 (F) On or after December 1, 1989, and on December 1 of  
17 each year thereafter, Plaintiffs will provide Aerojet:

18 (1) A written accounting of costs incurred during  
19 the preceding federal fiscal year, identifying the amount of  
20 qualified oversight costs incurred by each Plaintiff;

21 (2) The limitation for the next year, reflecting  
22 the adjustments made pursuant to Subparagraphs (E)(2), (3) or  
23 (4), if any.

24 (G) Payment under this Paragraph shall be made by check  
25 sent to the address specified in the written accounting and  
26 payable as specified in the written accounting. Aerojet  
27 shall make such payments within sixty (60) days of an  
28 accounting, or, if the matter is in dispute, within thirty

(30) days of a Court order.

(H) Any dispute respecting the accounting or appropriateness of costs under the standard for such costs set forth in this Paragraph will be resolved pursuant to Paragraph 20 (Dispute Resolution).

14. PAYMENTS

(A) To resolve claims for costs incurred by Plaintiffs before the lodging of the Decree and to resolve State civil monetary claims, Aerojet shall pay as follows:

(1) Within thirty (30) days of the effective date of the Decree, Aerojet shall pay a total of \$1,485,714.26 payable and allocated as follows:

<u>Payee</u>	<u>Amount</u>	<u>Allocation</u>
U.S.	\$ 400,000.00	past costs
State Water Pollution Cleanup and Abatement Account	666,666.67	past costs
California Hazardous Substance Account	108,333.33	past costs
State Water Pollution Cleanup and Abatement Account	285,714.26	monetary claims
California Department of Fish And Game	25,000.00	monetary claims

(2) Within 120 days of the effective date of the Decree, Aerojet shall pay a total of \$653,932.46 and thereafter on January 31 of each year for the years 1990 to and through 1994, payable and allocated as follows:

<u>Payee</u>	<u>Amount</u>	<u>Allocation</u>
U.S.	\$100,000.00	past costs

1 State Water Pollution  
Cleanup and

2 Abatement Account 172,222.22 past costs

3 California  
Hazardous Substance  
4 Account

95,995.95 past costs

5 State Water Pollution  
Cleanup and

6 Abatement Account 285,714.29 monetary claims

- 7 (3) Payments to U.S. shall be made by check  
8 payable to EPA-Hazardous Substance Superfund  
and sent to:

9 EPA-Superfund  
10 P.O. Box 371003 M  
Pittsburgh, PA 15251

- 11 (4) Payments to the State Cleanup and Abatement  
12 Account shall be sent to:

13 State Water Resources Control Board  
14 P. O. Box 100  
15 Sacramento, CA 95801

- 16 (5) Payments to the California Hazardous Substance  
17 Account shall be sent to:

18 Department of Health Services  
19 Toxic Substances Control Division  
20 Financial and Support Operations Section  
21 400 P Street  
22 Sacramento, CA 95814

- 23 (6) Payment to the Department of Fish and Game  
24 1701 Nimbus Road  
25 Rancho Cordova, CA 95670

- 26 (7) If an address should be changed, Aerojet shall  
27 so be notified in writing.

28 (B) Aerojet shall deposit \$225,000 to Advances from  
Responsible Parties Account within thirty (30) days of the  
effective date of the Decree to be used for oversight. Upon  
receipt of Aerojet's final payment of oversight costs  
allocable to DHS pursuant to Paragraph 13, this amount will  
resolve DHS' past cost claims.

1 (C) Nothing in this Paragraph shall affect Aerojet's  
2 obligations under Paragraph 13.

3 (D) No payment made by Aerojet pursuant to Paragraph 13  
4 or 14 shall be considered the payment of a civil or criminal  
5 fine or penalty.

6 15. DESIGNATED PROGRAM COORDINATORS AND TECHNICAL  
7 COMMUNICATIONS

8 Aerojet, EPA, DHS and Regional Board shall each  
9 designate a Program Coordinator ("Coordinator"). Within  
10 fifteen (15) days following the effective date of this  
11 Decree, each shall advise the others of the name and title of  
12 the person so designated. If at any time any such party  
13 appoints a new Coordinator, it shall so advise the others in  
14 writing. All communications between Plaintiffs and Aerojet  
15 pursuant to the terms and conditions of this Decree shall be  
16 made between said Coordinators except as otherwise provided  
17 in Paragraph 31. Communications from the Aerojet Coordinator  
18 to Plaintiffs, if in writing, shall go to each of Plaintiffs'  
19 Coordinators, and if by telephone or otherwise orally, may go  
20 to any one of such Coordinators. Coordinators shall have no  
21 personal financial liability arising from their duties as  
22 Coordinators.

23 16. ON SCENE COORDINATORS

24 (A) Plaintiffs shall jointly designate in writing one  
25 On-Scene Coordinator ("OSC").

26 (B) The OSC shall have the right to be present and move  
27 freely in any areas in which any work has been, is being,  
28 will, or may be conducted pursuant to this Decree for



1 purposes of observation and monitoring. The OSC shall  
2 provide Aerojet's Coordinator with reasonable notice of his  
3 or her intent to enter any such area, shall agree to be  
4 accompanied by an Aerojet representative if Aerojet so  
5 desires, and shall comply with Aerojet and governmental  
6 safety and security regulations as uniformly applied to all  
7 persons on the premises.

8 (C) The absence of the OSC shall not be cause to stop  
9 work.

10 17. EMERGENCIES

11 (A) If the OSC concludes that the performance of any  
12 activity or requirement of this Decree by Aerojet may cause  
13 an immediate injury to public health or will cause immediate  
14 and substantial injury to the environment, the OSC may  
15 proceed in accordance with Subparagraph 17(B). Aerojet  
16 reserves the right to contend that the injury to the  
17 environment is not an emergency because the injury was  
18 foreseeable.

19 (B)(1) If the OSC reaches the conclusion stated in  
20 Subparagraph 17(A), the OSC may immediately notify Aerojet of  
21 such conclusion and, if the OSC and Aerojet are unable to  
22 agree on a response to the emergency, the OSC may then order  
23 Aerojet to suspend the performance. Thereupon, Aerojet shall  
24 suspend the performance and Plaintiffs or Aerojet may submit  
25 the dispute to the Court on an expedited basis pursuant to  
26 Paragraph 20 (Dispute Resolution) to determine whether the  
27 OSC's order was appropriate. Aerojet will further suspend  
28 the performance until the Court decides the matter or

1 Plaintiffs and Aerojet are able to agree on an appropriate  
2 course of action. If any order under this Subparagraph is  
3 given orally, it shall be confirmed in writing as soon as  
4 practicable.

5 (2) If the OSC reaches the conclusion stated in  
6 Subparagraph 17(A) and the OSC determines that some  
7 affirmative action is necessary to reduce or eliminate the  
8 injury, the OSC shall order Aerojet to perform that  
9 affirmative action. If Aerojet agrees with the OSC's order,  
10 it shall perform the action. If the OSC and Aerojet cannot  
11 agree, the United States and the State reserve the right to  
12 obtain any judicial relief which may be available under  
13 applicable authority, including cost recovery.

14 (3) Any order pursuant to Subparagraph 17(B)(1) or  
15 17(B)(2) shall be made in a manner as consistent as possible  
16 with the performance required by this Decree but also in a  
17 manner to avoid or mitigate the injury.

18 (C) If at any time Aerojet concludes that the  
19 performance of any activity or requirement of this Decree by  
20 Aerojet may cause an immediate injury to public health or  
21 will cause an immediate and substantial injury to the  
22 environment, Aerojet shall immediately notify Plaintiffs of  
23 such conclusion. Aerojet shall either take such action as  
24 Aerojet and the OSC agree will reduce or eliminate the injury  
25 or, if they are unable to agree, Aerojet shall suspend the  
26 performance, whereupon either party may submit the dispute to  
27 the Court on an expedited basis pursuant to Paragraph 20  
28 (Dispute Resolution).

1 (D) If Aerojet suspends any performance or performs any  
2 affirmative action under the provisions of this Paragraph,  
3 its time to complete the affected activity or requirement and  
4 any dependent activity or requirement shall be extended for  
5 the time period of the delay attributable to the suspension  
6 or affirmative action. Any dispute respecting a time  
7 extension hereunder shall be resolved pursuant to  
8 Paragraph 20 (Dispute Resolution).

9 18. ACCESS TO LAND, ACCESS TO RECORDS AND RETENTION OF  
10 RECORDS

11 (A) Aerojet shall permit authorized representatives of  
12 Plaintiffs to enter Aerojet's land in Sacramento County, in  
13 the company of an Aerojet representative if desired by  
14 Aerojet, for the purposes of monitoring the progress of  
15 Aerojet's activities undertaken pursuant to this Decree, of  
16 assessing Aerojet's compliance with this Decree, or of  
17 verifying any data or information submitted by Aerojet to  
18 Plaintiffs in the performance of this Decree.

19 (B) Aerojet shall make available, and Plaintiffs shall  
20 have authority to inspect and copy (at Plaintiffs' expense),  
21 raw analytical data, laboratory data logbooks, sampling  
22 analyses, chain-of-custody records, and any other records, of  
23 whatever character, whenever generated and wherever located,  
24 reasonably necessary to serve the purposes stated in this  
25 Paragraph (not including documents already furnished to  
26 Plaintiffs or documents subject to any legally applicable  
27 attorney-client privilege or attorney work-product  
28 exception). Aerojet will not destroy any raw analytical

1 data, laboratory data logbooks, sampling analyses, or  
2 chain-of-custody records which Plaintiffs are entitled to  
3 inspect without giving Plaintiffs sixty (60) days notice.

4 (C) If photographs are reasonably appropriate for the  
5 purposes stated in this Paragraph, Aerojet will permit a  
6 representative of Plaintiffs in the presence of an Aerojet  
7 representative to take the photographs. Copies of  
8 photographs shall be given to Aerojet. The scope or field of  
9 any photographs shall be no greater than necessary.

10 (D) Plaintiffs' entry or inspection shall be at  
11 reasonable times and upon reasonable notice to Aerojet's  
12 Coordinator which notice identifies the purpose of the  
13 request. Entry and inspection shall be contingent on  
14 presentation at the time of access of written credentials of  
15 the authorized representative. Plaintiffs shall comply with  
16 all Aerojet and governmental safety and security regulations  
17 as uniformly applied to all persons on the premises.

18 (E) Each contractor or subcontractor of Plaintiffs, and  
19 each employee of such contractor or subcontractor, is an  
20 authorized representative of Plaintiffs within the meaning of  
21 this Decree only if the contract or subcontract provides:

22 (1) That the contractor or subcontractor and the  
23 contractor's or subcontractor's employees shall use the  
24 obtained information only for the purpose of carrying out the  
25 work required by the contract or subcontract, shall refrain  
26 from disclosing the information to anyone other than  
27 Plaintiffs without the prior written approval of Aerojet or  
28 of Plaintiffs after notice to Aerojet in accord with the

1 provisions of Paragraph 23, and shall return to Plaintiffs  
2 all copies of the information and any abstracts or extracts  
3 therefrom whenever the information is no longer required by  
4 the contractor or subcontractor for the performance of the  
5 work required under the contract or subcontract;

6 (2) That the contractor or subcontractor shall  
7 first obtain a written agreement from each of its employees  
8 who will have access to the information to honor such terms  
9 of the contract or subcontract; and

10 (3) That the contractor or subcontractor  
11 acknowledges and agrees that the contract or subcontract  
12 provisions concerning the use and disclosure of information  
13 are enforceable by both Plaintiffs and Aerojet.

14 (F) Plaintiffs will make available to Aerojet to  
15 inspect and copy (at Aerojet's expense) all information and  
16 records (not including documents already furnished to Aerojet  
17 or documents subject to any legally applicable  
18 attorney-client privilege or work product or government  
19 deliberative process exception) which are in the custody,  
20 possession or control, or subsequently come into the custody,  
21 possession or control of Plaintiffs to assist Aerojet in  
22 conducting or evaluating its obligations under this Decree,  
23 including all raw data, laboratory sheets, sampling analyses,  
24 chain-of-custody records and other documents reasonably  
25 necessary to serve the purposes stated in this Paragraph.

26 (G) This Subparagraph (G) establishes procedures for  
27 the transfer of computer data between the parties.

28 (1) Within thirty (30) days of the effective date

1 of the Decree, Aerojet shall submit to Plaintiffs a computer  
2 tape in the format specified below, which will consist of all  
3 data in Aerojet's SEO VAX computer as of the effective date  
4 of the Decree that resulted from monitoring and  
5 investigations for the release of hazardous substances that  
6 are to be addressed by the Decree (the "data base"). The  
7 database includes data from operation of GET facilities,  
8 monitoring of onsite and offsite wells, sampling of surface  
9 waters and soils and hydrogeological measurements, such as  
10 the type of records identified in Table 1 of Exhibit II-1.  
11 The database may include, at Aerojet's option, similar types  
12 of data that are already reported by Aerojet pursuant to  
13 governmental permits, such as an NPDES permit; however,  
14 submission under this Paragraph shall not replace reporting  
15 required by such permits. As requested by Plaintiffs,  
16 Aerojet shall organize the database and a listing of all  
17 sampling locations by sector, zone, or in numerical order.  
18 Unless otherwise agreed, the format shall be VAX RMS files on  
19 a 9-track, 1600 BPI unlabeled tape.

20 (2) By the 15th day of each calendar month  
21 beginning with the second full month after the effective date  
22 of the Decree, Aerojet shall submit an updated copy of the  
23 data base which includes all new data validated and entered  
24 into the data base during the preceding month. The monthly  
25 update shall also contain in document form the new data  
26 validated and entered and a list of sampling stations in  
27 sector or zone subgroups from which the reported data were  
28 obtained. Aerojet shall state in writing whether any

1 previously entered data have been changed and why any change  
2 was made. Further, any (a) non-validated water or soil data  
3 collected pursuant to this Decree, or (b) non-entered data  
4 collected pursuant to Paragraph G of Exhibit VI, held by  
5 Aerojet for at least six (6) months shall be identified in  
6 the monthly updates.

7 (3) Plaintiffs may call upon Aerojet for  
8 reasonable consultation from time to time for the purpose of  
9 transferring the data from Aerojet's computer to Plaintiffs'  
10 computers. In no event shall Aerojet be obligated to consult  
11 for more than forty (40) hours for the initial transfer and  
12 eight (8) hours per month thereafter.

13 (H) Nothing in this Paragraph limits or otherwise  
14 affects any right of entry by Plaintiffs pursuant to  
15 applicable law or regulation.

16 19. REVIEW OF SUBMITTALS

17 (A) Unless an alternate schedule is specifically  
18 provided in this Decree, or unless the parties agree to a  
19 shorter or longer period, Plaintiffs shall review all  
20 submittals required to be submitted to Plaintiffs by Aerojet  
21 for approval according to this Decree within ninety (90) days  
22 after receipt of each such submittal.

23 (B) On or before the last day of the period designated  
24 in Subparagraph 19(A), the United States and the State shall  
25 each notify Aerojet in writing (which notice can be made  
26 jointly) as to whether each approves the submittal,  
27 disapproves the submittal or requires additional time for  
28 review. If the submittal is disapproved, written reasons for

1 the disapproval shall be provided. A submittal is not deemed  
2 approved unless approved by both the United States and the  
3 State.

4 (C) Except as otherwise provided in this Decree, the  
5 following shall constitute a dispute to be resolved pursuant  
6 to Paragraph 20 (Dispute Resolution): (1) failure of a  
7 Plaintiff to notify of approval or disapproval in the time  
8 specified; (2) a request for additional time which has not  
9 been agreed to by Aerojet; or (3) any disapproval.

10 20. DISPUTE RESOLUTION

11 (A) Any dispute shall first be the subject of informal  
12 negotiations at the written request of the United States, the  
13 State or Aerojet. If the United States, the State or Aerojet  
14 cannot resolve any dispute through informal negotiations  
15 within thirty (30) days from the date of the request, the  
16 dispute may be referred by the United States, the State or  
17 Aerojet to the Court for judicial resolution. If the  
18 exigencies require, the matter may be referred to the Court  
19 prior to the expiration of the 30-day period. The thirty  
20 (30) day period may be extended or shortened by agreement of  
21 the United States, the State and Aerojet, or by Court Order.

22 (B) In any dispute with either or both Plaintiffs,  
23 Aerojet shall bear the burden of proof, except as provided in  
24 Subparagraph (C) below, or as otherwise provided in the  
25 Decree.

26 (C) Plaintiffs shall bear the burden of proof if  
27 Plaintiffs are seeking (1) a modification of this Decree,  
28 (2) a change or amendment respecting any activity already



1 agreed upon or ordered by the Court, (3) a penalty, or  
2 (4) enforcement of the Decree. Disputes over approval or  
3 disapproval of submittals subject to Paragraph 19 do not  
4 constitute enforcement of the Decree as that term is used in  
5 this Subparagraph.

6 (D) The Court shall determine the appropriate standard  
7 of resolution of any dispute referred to the Court pursuant  
8 to Subparagraph 20(A).

9 (E) The outcome of any dispute notwithstanding,  
10 Aerojet's obligations and responsibilities under this Decree  
11 are segregable.

12 (F) Should any dispute be referred to the Court,  
13 Plaintiffs and Aerojet shall join in requesting that these  
14 matters be given priority on the Court's calendar.

15 21. PERMITS

16 Aerojet shall seek to obtain on a timely basis any  
17 consent, permit or license from any governmental agency or  
18 any private landowner or lessee that is required by law for  
19 the performance of any activity under this Decree. If  
20 Aerojet is unable to obtain such consent, permit or license  
21 on a timely basis or except on terms which would  
22 significantly change the performance of the activity or  
23 requirement under this Decree, Aerojet shall propose to  
24 Plaintiffs as soon as practicable an alternative or other  
25 appropriate adjustment to the activity or dependent activity  
26 that is precluded. If Plaintiffs and Aerojet agree (a) that  
27 the consent, permit or license cannot be obtained on a timely  
28 basis or that the terms would significantly change the

1 performance of the activity or requirement under this Decree;  
2 and (b) to the alternative or other appropriate adjustment,  
3 then they will jointly file with the Court a modification of  
4 the Decree. If they do not agree on both (a) and (b), the  
5 dispute shall be resolved pursuant to Paragraph 20 (Dispute  
6 Resolution). Actions taken pursuant to this Decree shall be  
7 deemed to have

1 been taken pursuant to CERCLA Section 106. This Paragraph  
2 does not impose the obligation to obtain any consent, permit  
3 or license where such has been exempted by the NCP or CERCLA,  
4 and, in particular, no federal, state or local permit shall  
5 be required for the portion of any action pursuant to this  
6 Decree conducted entirely on-site.

7 22. COVENANT NOT TO SUE

8 (A) Except as specifically provided in  
9 Subparagraphs (C) through (J), Plaintiffs, and each of them,  
10 covenant not to take any judicial or administrative action,  
11 including the assertion of a lien pursuant to CERCLA Section  
12 107(1) or state law, against Aerojet (including past or  
13 present officers, directors and employees) for any "Covered  
14 Matters." Notwithstanding the previous sentence, if Aerojet  
15 is not in compliance with the payment requirements of  
16 Paragraphs 13 or 14, Plaintiffs reserve their rights to  
17 assert a lien to secure such payments. "Covered Matters"  
18 shall include any and all Aerojet civil liability to the  
19 Plaintiffs or any of them, for:

20 (1) The undertaking and completion of a Remedial  
21 Investigation/Feasibility Study or any like requirement under  
22 common law or any statute or regulation administered or  
23 enforceable by any Plaintiff for the investigation of site  
24 conditions or evaluation of potential response actions as to  
25 any release or threat of release of any hazardous substance  
26 from any discharge of any hazardous substance occurring  
27 before the effective date of the Decree addressed and to the  
28 extent addressed or to be addressed by the RI/FS pursuant to  
PARTIAL CONSENT DECREE

1 Paragraph 5;

2 (2) Payment of costs incurred by Plaintiffs for  
3 oversight of Aerojet's actions undertaken pursuant to this  
4 Decree;

5 (3) Payment of response costs incurred by  
6 Plaintiffs before the effective date of the Decree in  
7 connection with the Aerojet Site, except for costs that may  
8 have been incurred by Plaintiffs in connection with a release  
9 or threat of release described in Subparagraph 5(A)(1)(a)(ii);

10 (4) The interim measures for drinking water supply  
11 wells and the American River as required by Paragraph 6 and  
12 Exhibits IV and V, except as provided therein and in the  
13 Program Plan, until Aerojet's obligations terminate pursuant  
14 to Paragraph 26:

15 (5) The interception, extraction, and treatment of  
16 plumes of chemicals in the ground water near the periphery of  
17 and/or beneath the Aerojet-General Operating Plant as  
18 required by Paragraph 7 and Exhibit VI, except as provided  
19 therein and in the Program Plan, until Aerojet's obligations  
20 terminate pursuant to Paragraph 26.

21 (6) Restrictions on the use of, construction upon,  
22 or grant of Exhibit I-1 land as required by Paragraph 11,  
23 until Aerojet's obligations terminate pursuant to  
24 Paragraph 26.

25 (B) This Decree resolves additional liabilities to the  
26 State and the State further covenants not to take any  
27 judicial or administrative action against Aerojet (including  
28 past or present officers, directors and employees) for any

1 "Additional State Covered Matters." "Additional State  
2 Covered Matters" shall include any and all Aerojet civil  
3 liability to the State for:

4 (1) Any claim for any penalty or any damage raised  
5 or that could have been raised in the action People of the  
6 State of California ex rel. John K. Van De Kamp, Attorney  
7 General, et al. v. Aerojet-General Corporation, et al., Civ  
8 No. 286073 ("State Action") other than for discharges into  
9 Aerojet's Deep Injection Wells Nos. 1 and 2.

10 (2) Any claim arising under common law, state  
11 statutes or regulations, or Federal statute or regulation,  
12 and enforceable or administered by the California Attorney  
13 General in its independent capacity, DHS, Regional Board,  
14 Department of Fish and Game or the State Account  
15 (collectively "State relators"), and which concern damages to  
16 natural resources, including any claim by the State of  
17 California pursuant to CERCLA for damages to natural  
18 resources, except for any claim of the Department of Fish and  
19 Game for damages for loss of use of the Nimbus Fish Hatchery  
20 Wells after July 1, 1987. State relators have been for  
21 purposes of this action properly designated as the State  
22 trustees for natural resources under CERCLA pursuant to  
23 Section 107(f)(2)(B).

24 (3) Compliance or non-compliance with Regional  
25 Board Order Nos. 79-196, 79-197, 79-198, 79-200, 79-201,  
26 79-202, 79-258, 79-259, 79-260, and 83-040, except as  
27 otherwise reserved pursuant to this Paragraph. The Regional  
28 Board shall cause the vacating of any portion of any such

1 order as to matters resolved by this Decree.

2 (4) State Plaintiffs in the State action will  
3 dismiss with prejudice all matters resolved by this Decree  
4 within thirty (30) days of entry of this Decree. The  
5 dismissal shall state that Plaintiffs in that action dismiss  
6 with prejudice all matters resolved pursuant to Paragraph 22  
7 of that certain consent decree entered on [date] in the  
8 consolidated actions [caption of this action];

9 (C) Nothing in this Decree resolves the following  
10 matters:

11 (1) Aerojet's liability, if any, for the disposal  
12 of hazardous substances taken from the Aerojet Site.

13 (2) Such rights as are reserved pursuant to  
14 Paragraph 6 (and Exhibits IV and V), Paragraph 17, and  
15 Subparagraph 22(J).

16 (D) Nothing in this Decree resolves the liability of  
17 Aerojet as to the McDonnell Douglas Property except to the  
18 extent of Aerojet liability pursuant to Paragraph 5.

19 (E) With respect to Aerojet's ongoing business  
20 activities, nothing in this Decree, except as provided in  
21 Subparagraphs 22(A) and 22(B), shall be construed as a  
22 limitation upon the authority of Plaintiffs to administer all  
23 applicable statutes or regulations; to issue or modify  
24 permits; or to utilize administrative or injunctive remedies,  
25 including but not limited to the issuance of orders.

26 (F) Nothing in this Decree resolves claims against  
27 Aerojet which may be asserted for damages to natural  
28 resources by or on behalf of the Department of the Interior

1 or other Federal trustees.

2 (G)(1) This Decree sets forth certain obligations of  
3 Aerojet, including obligations to pay monies, take actions  
4 and incur costs (as used in this Subparagraph 22(G)  
5 "obligations" of Aerojet) and resolves certain potential  
6 liabilities of Aerojet to the Plaintiffs, all as set forth in  
7 this Decree. Aerojet has asserted and claimed and may assert  
8 and claim in the future that (i) its environmental  
9 expenditures, including the obligations of Aerojet under this  
10 Decree, be recognized under its contracts with the United  
11 States; and (ii) under CERCLA and other bases the United  
12 States share in, contribute to, indemnify, pay or otherwise  
13 be responsible or liable in whole or in part for such  
14 environmental expenditures. The United States has denied  
15 such assertions and claims and may in the future deny such  
16 assertions and claims.

17 (2) As to all such claims and assertions described  
18 in Subparagraph (1):

19 (a) To the extent consistent with the Decree,  
20 including Subparagraph (G)(2)(b): all such claims and  
21 assertions are reserved to Aerojet, all defenses to such  
22 claims and assertions are reserved to the United States and  
23 such claims, assertions and defenses are not resolved as  
24 between Aerojet and the United States. The parties entering  
25 into this settlement shall not be construed as, nor shall it  
26 operate to effectuate, a resolution of or a bar to any claim  
27 or assertion or defense referred to in the preceding sentence.

28 (b) This Decree does not constitute evidence

1 of any party's responsibility or lack of responsibility for  
2 causing or contributing to the alleged release or threat of  
3 release of hazardous substances that led to the response  
4 actions required by this Decree and either party may assert  
5 or introduce evidence that either party is responsible for  
6 causing or contributing to such alleged release or threat of  
7 release.

8 (H) Nothing in this Decree resolves Aerojet's  
9 liability, if any, respecting Aerojet's Deep Injection Wells  
10 Nos. 1 and 2, except for liability pursuant to Paragraph 5 as  
11 to any discharge of hazardous substances occurring in or  
12 above the Mehrten formation.

13 (I) Nothing in this Decree shall be construed to alter  
14 Plaintiffs' right to enforce this Decree in this Court in  
15 this action in the event of Aerojet's noncompliance with its  
16 terms.

17 (J) Notwithstanding any other provision in this Decree,  
18 Plaintiffs reserve their respective rights to take any  
19 removal action not included within Covered Matters, as that  
20 term is defined in this Paragraph 22, or to take any remedial  
21 action and to recover the costs of such actions. Plaintiffs  
22 further reserve their respective rights to compel Aerojet to  
23 take such removal or remedial actions through administrative  
24 or judicial action.

25 **23. PUBLIC AVAILABILITY OF DOCUMENTS**

26 (A) This Decree specifies that a number of reports be  
27 submitted to Plaintiffs to report progress or for review and  
28 comment or review and approval. This Decree also specifies



1 that data be periodically submitted to Plaintiffs. Each such  
2 report submitted pursuant to an obligation specified in this  
3 Decree and all such data will be available to the public from  
4 Plaintiffs, unless identified as confidential by Aerojet in  
5 accordance with CERCLA 104(e)(7)(E) and (F) and 40 CFR  
6 Part 2, Subpart B or unless identified by Aerojet as a  
7 document to which access is restricted pursuant to United  
8 States regulations, applicable to Aerojet, relating to  
9 national security. For any page of any document that Aerojet  
10 does not stamp confidential, any claim of confidentiality by  
11 Aerojet shall be waived. Effluent data, sampling and  
12 monitoring data, all hydrogeological and geological data and  
13 all matters specified in CERCLA 104(e)(7)(F) shall not be  
14 considered confidential.

15 (B) Matters identified as confidential or access  
16 restricted pursuant to Subparagraph (A) will be disclosed  
17 only in accordance with the confidentiality statutes and  
18 regulations of Plaintiffs, or the United States' national  
19 security regulations, and shall not be disclosed to any  
20 contractor or subcontractor of Plaintiffs or to any employee  
21 of such contractor or subcontractor unless the provisions of  
22 Paragraph 18(E) have been met and Aerojet receives written  
23 notice at least five (5) days in advance of the contemplated  
24 disclosure. Should Plaintiffs be sued for failure to release  
25 the information identified as confidential by Aerojet,  
26 Aerojet agrees to be joined in such suit and defend as the  
27 real party in interest and to reimburse Plaintiffs for the  
28 reasonable costs incurred in such suit.

1 (C) All other matters generated by Plaintiffs or their  
2 subcontractors or submitted by Aerojet to Plaintiffs will be  
3 disclosed to the public according to existing state law (as  
4 to the State of California) or federal law (as to the United  
5 States).

6 24. SAMPLING AND QUALITY ASSURANCE

7 (A) Aerojet shall submit to Plaintiffs for review and  
8 approval a Quality Assurance Project Plan ("QAPP") according  
9 to the schedule specified in the Program Plan. Aerojet shall  
10 conduct all work pursuant to this Decree in accordance with  
11 the approved QAPP. Aerojet will follow its then current  
12 quality assurance plan until superseded by the approved QAPP.

13 (B) Aerojet may, from time to time, seek to modify or  
14 deviate from the approved QAPP as follows:

15 (1) Except as provided in Subparagraph 24(B)(2),  
16 Aerojet must request such modification or deviation in  
17 writing. If Plaintiffs do not indicate written approval of  
18 the request within ten (10) days of receipt or other period  
19 of time to which the parties agree, it shall be deemed  
20 disapproved.

21 (2) Based on the exigencies of the situation,  
22 Aerojet may make its request for modification or deviation  
23 orally and seek Plaintiffs' approval within a specified  
24 period of time. If Plaintiffs do not approve the request,  
25 Aerojet may proceed with the modification or deviation  
26 subject to Plaintiffs' subsequent disapproval of the  
27 modification or deviation and invalidation of any data  
28 collected inconsistently with the approved QAPP. All oral

1 communications regarding modification or deviation shall be  
2 confirmed in writing within five (5) days.

3 (C) Upon request by Plaintiffs, Aerojet shall provide  
4 split and duplicate samples in accordance with the QAPP.  
5 Aerojet shall permit Plaintiffs to collect samples at all  
6 locations on the Aerojet Site to which Aerojet has access.

7 (D) Prior to disposal of any soil sample by Aerojet,  
8 Plaintiffs shall be given thirty (30) days notice and an  
9 opportunity to take possession of such sample.

10 (E) For the purposes of any proceeding to resolve a  
11 dispute concerning the implementation of this Consent Decree,  
12 or any other proceeding between the parties occurring before  
13 the termination of this Decree, the parties waive any  
14 evidentiary objection (except relevance) to the admissibility  
15 into evidence of data validated pursuant to the QAPP or  
16 validated pursuant to the Validation Plan for Historic Data,  
17 Exhibit II-1.

18 (F) Any dispute under this Paragraph will be resolved  
19 pursuant to Paragraph 20 (Dispute Resolution).

20 **25. SCHEDULE ADJUSTMENT**

21 (A) For the reasons specified in Subparagraph 25(B),  
22 Aerojet shall be entitled to seek an equitable adjustment to  
23 any approved schedule for any of the following activities:

24 (1) Any action to be taken pursuant to  
25 Paragraph (G) or (E) of Exhibit IV, or any action required by  
26 a Preliminary Water Supply Alternatives Report approved  
27 pursuant to Paragraph E of Exhibit IV for completion of a  
28 Final Water Supply Alternatives Report.

1           (2) Any action to be taken in connection with any  
2 schedule specified by the Preliminary Report on Evaluation of  
3 Source, approved pursuant to Paragraph H of Exhibit V for  
4 completion of a Final Report on Evaluation of Source.

5           (3) Any action to be taken pursuant to  
6 Paragraph (C) or (D) of Exhibit VI.

7           (4) Any action to be taken pursuant to Paragraph 5.

8           (B) For any of the activities specified in Subparagraph  
9 25(A), Aerojet shall be entitled to seek an equitable  
10 adjustment to any approved schedule for any of the following  
11 reasons:

12           (1) Any reason specified elsewhere in the Decree.

13           (2) Any reason as may be agreed to by the parties.

14           (3) Approved work is changed pursuant to agreement  
15 or court order.

16           (4) Plaintiffs do not approve a submittal within  
17 the time specified.

18           (5) Plaintiffs do not provide a submittal within  
19 the time specified.

20           (6) Environmental conditions are encountered which  
21 were not known or reasonably foreseeable at the time a  
22 schedule was approved and such conditions require substantial  
23 additional work.

24           (7) Action is required under an Exhibit which was  
25 not planned for at the time a schedule was approved and which  
26 will require substantial additional work to complete.

27           (C) Aerojet shall also be entitled to seek an equitable  
28 adjustment to any approved schedule for any of the activities

1 specified in Subparagraph (A)(4) where a Stage 2 Sampling  
2 Plan is incorporated into the approved Phase I RI/FS Workplan.

3 (D) Any dispute under this Paragraph will be resolved  
4 pursuant to Paragraph 20 (Dispute Resolution).

5 26. TERMINATION

6 (A) At any time after approval of the Phase II RI/FS  
7 Report if Aerojet concludes that one or more obligations or  
8 requirements of this Decree have been fully performed, it may  
9 so notify Plaintiffs in writing. Plaintiffs shall respond in  
10 writing within sixty (60) days or such longer period as may  
11 be agreed by the parties. If Plaintiffs and Aerojet agree  
12 that the obligation(s) or requirement(s) has been fully  
13 performed, they will jointly file with the Court a  
14 stipulation to that effect.

15 (B) This Subparagraph applies only following approval  
16 of the Phase II RI/FS Report. Aerojet's obligations pursuant  
17 to Paragraphs 6, 7 and 11 (and any grantee's obligations  
18 pursuant to Paragraph 11) shall continue for 3 years after  
19 approval of the Phase II RI/FS Report, but any or all such  
20 obligations shall terminate if plaintiff agencies, or any of  
21 them, issue administrative order(s) or obtain an order from  
22 any court that gives rise to an obligation in Aerojet that is  
23 inconsistent with any obligation under Paragraphs 6, 7, or 11  
24 (or inconsistent with any obligation of a grantee pursuant to  
25 Paragraph 11).

26 (C) Aerojet's obligations pursuant to Paragraph 18  
27 shall continue to the extent necessary for Plaintiffs to  
28 oversee Aerojet's performance of non-terminated obligations.

1 (D) Aerojet's obligation to make payment pursuant to  
2 Paragraphs 13 and 14 shall terminate as specified therein.

3 (E) Any dispute will be resolved pursuant to  
4 Paragraph 20 (Dispute Resolution).

5 27. CLAIMS AGAINST THE FUND

6 Aerojet agrees not to assert any claims, demands or  
7 causes of action against the United States or the State for  
8 reimbursement from the Hazardous Substances Superfund,  
9 pursuant to 42 U.S.C. 9612, or against the State for  
10 reimbursement from the State Account, pursuant to California  
11 Health and Safety Code Section 25300, et seq., as to actions  
12 taken by Aerojet pursuant to this Decree. Provided however,  
13 that this Paragraph shall not bar or diminish any right  
14 reserved to Aerojet pursuant to this Decree.

15 28. PARTIES BOUND

16 This Decree shall apply to and be binding upon the  
17 parties, their officers, agents, servants, employees,  
18 successors, and attorneys, and upon those persons in active  
19 concert or participation with them who receive actual notice  
20 of this Decree by personal service or otherwise. Each  
21 undersigned representative certifies that he or she is fully  
22 authorized to enter into and execute this Decree, and to  
23 legally bind the party represented. The United States  
24 Department of Justice, by executing this Decree, binds all  
25 agencies and instrumentalities of the United States to the  
26 terms of the Decree. Except for EPA, no agency or  
27 instrumentality of the United States, including Department of  
28 Defense, Department of Energy, and National Aeronautics and

1 Space Administration, may seek or obtain relief or take  
2 action against Aerojet, as to matters addressed by the Decree.

3 29. SETTLEMENT OF ACTION

4 This Decree constitutes an agreed partial settlement of  
5 the action. Neither this Decree nor any part hereof shall  
6 constitute an admission of liability, an admission of fact or  
7 evidence of such, or an admission of violation of any law or  
8 regulation.

9 30. DISCLAIMER OF THIRD PARTY LIABILITY

10 No party shall be liable for any injuries or damages to  
11 persons or property resulting from acts or omissions of any  
12 other party in carrying out activities pursuant to this  
13 Decree.

14 31. LEGAL COMMUNICATIONS

15 (A) All notices, requests and other written  
16 communications pursuant to Paragraphs 9, 11, 12, 20 and 26  
17 and Exhibit VII made between Aerojet, the United States and  
18 the State shall be between their legal counsel. Within  
19 fifteen (15) days following the effective date of this  
20 Decree, each shall designate its counsel for receipt of such  
21 communications and advise the others in writing. If at any  
22 time any party designates different counsel, except as may be  
23 additionally provided pursuant to Paragraph 11(O), the party  
24 shall notify the others in writing.

25 (B) All notices, requests and other written  
26 communications pursuant to Exhibit VII between the United  
27 States and GenCorp shall be made between the designated  
28 counsel for the United States and the GenCorp Legal

1 Department, 175 Ghent Rd., Akron, OH 44313, unless GenCorp  
2 agrees in writing otherwise. The United States shall timely  
3 notify GenCorp of United States' designating counsel and any  
4 subsequent designation pursuant to Subparagraph 31(A).

5 **32. STATE LITIGATION**

6 Except as provided in Paragraph 22, the parties to the  
7 consolidated State Court actions in Sacramento County  
8 Superior Court, Nos. 286073, 288302, and 291981 (the "State  
9 Actions"), shall enter into a Stipulation pursuant to  
10 California Code of Civil Procedure 583.330 providing that the  
11 time for bringing the State Actions to trial shall be  
12 extended until two (2) years following termination of  
13 Aerojet's obligations pursuant to Paragraph 26(B) of the  
14 Decree. Aerojet has entered into this Decree on the  
15 condition that all parties to the State Actions enter such  
16 stipulation.

17 **33. RETENTION OF JURISDICTION**

18 This Court shall retain jurisdiction over this matter  
19 for the purposes of interpreting, implementing, modifying,  
20 enforcing, or terminating the terms of this Decree, and for  
21 adjudicating all disputes between the parties under this  
22 Decree.

23 **34. LODGING OF THE DECREE WITH THE COURT AND PUBLIC COMMENT**

24 This Decree shall be lodged with the Court for a period of  
25 sixty (60) days for public comment pursuant to the provisions  
26 of 28 C.F.R. 50.7, and it shall not be submitted to the Court  
27 for execution until the expiration of that period. The  
28 effective date of this Decree shall be the date it is signed



by the Court.

Comments shall be submitted to:

Roger J. Marzulla  
Assistant Attorney General  
Land and Natural Resources Division  
U.S. Department of Justice  
Washington, D.C. 20530

Edna Walz  
Deputy Attorney General  
Department of Justice of the State of California  
1515 "K" Street  
Sacramento, CA 95814

Comments may also be submitted to:

Clerk of the Court  
[Attention: United States, et al., v. Aerojet-General  
Corporation, et al.]  
United States Courthouse  
650 Capital Mall  
Sacramento, CA 95814

Aerojet-General Corporation  
Attention: Legal Department  
P.O. Box 13618  
Sacramento, CA 95853

Regional Counsel  
United States Environmental Protection Agency  
215 Fremont Street  
San Francisco, CA 94105

This Decree as Modified by the Stipulation dated <sup>May</sup> ~~March~~ 31,  
1989 shall be entered.

Dated this 23<sup>rd</sup> day of June, 1989

Col J. Lammie  
United States District Judge

1 IT IS HEREBY STIPULATED that the foregoing Decree may be  
2 entered, each party reserving the right, based on public  
3 comment, to withdraw its consent to this Decree prior to its  
4 entry by the Court.

5 This Decree may be executed in multiple counterparts,  
6 which shall constitute a single Decree.

7 FOR DEFENDANT AEROJET-GENERAL CORPORATION

8 DATED: 8-19-88

9 BY: Lawrence A. Hobel

10 Lawrence A. Hobel  
11 Ware & Freidenrich  
12 A Professional Corporation  
13 Attorneys for Defendants  
14 Aerojet-General Corporation  
15 and Cordova Chemical Company

16 DATED: 8-19-88

17 BY: William L. Berry, Jr.

18 William L. Berry, Jr.  
19 Vice President and General Counsel  
20 Aerojet-General Corporation

21 DATED: 8-19-88

22 BY: Kenneth R. Collins

23 Kenneth R. Collins  
24 Group Vice President - Sacramento Operations  
25 Aerojet-General Corporation  
26  
27  
28

1 FOR DEFENDANT CORDOVA CHEMICAL COMPANY

2 DATED: 8-19-88

3 BY: Laurence A. Hobel

4 Laurence A. Hobel  
5 Ware & Freidenrich  
6 A Professional Corporation  
7 Attorneys for Defendants  
8 Aerojet-General Corporation  
9 and Cordova Chemical Company

10 DATED: 8-19-88

11 BY: William L. Berry Jr.

12 William L. Berry Jr.  
13 Vice President  
14 Cordova Chemical Company

15 FOR PLAINTIFF UNITED STATES OF AMERICA:

16 DATED: 8/30/88

17 BY: Roger J. Mirzullap

18 Roger J. Mirzullap  
19 Assistant Attorney General  
20 Land and Natural Resources Division  
21 U.S. Department of Justice  
22 Washington, D.C. 20530

23 DATED: 8/30/88

24 BY: Jerry Schwartz

25 Jerry Schwartz, Trial Attorney  
26 P.O. Box 7611  
27 Environmental Enforcement Section  
28 Ben Franklin Station  
Land and Natural Resources Division  
U.S. Department of Justice  
Washington, D.C. 20044

DATED: 9-27-88

BY: Thomas L. Adams, Jr.  
 Thomas L. Adams, Jr.  
 Assistant Administrator  
 Office of Enforcement and Compliance Monitoring  
 U.S. Environmental Protection Agency  
 401 M. Street, S.W.  
 Washington, D.C. 20460

DATED: 9-25-88

BY: Frances L. McChesney  
 Frances L. McChesney  
 Attorney-Advisor  
 Office of Enforcement and Compliance Monitoring  
 U.S. Environmental Protection Agency  
 401 M. Street, S.W.  
 Washington, D.C. 20460

DATED: 8-24-88

BY: Daniel W. McGovern  
 Daniel W. McGovern  
 Regional Administrator  
 U.S. Environmental Protection Agency  
 Region IX  
 215 Fremont Street  
 San Francisco, CA 94105

DATED: 8-24-88

BY: Jo Ann Asami  
 Jo Ann Asami  
 Assistant Regional Counsel  
 U.S. Environmental Protection Agency  
 Region IX  
 215 Fremont Street  
 San Francisco, CA 94105

1 FOR PLAINTIFF STATE OF CALIFORNIA

2 DATED:

August 22, 1988

3 BY:

Andrea Ordin

4 Andrea Ordin  
5 Chief Assistant to the Attorney General  
6 Department of Justice of the State of California  
1515 "K" Street  
Sacramento, CA 95814

7 DATED:

August 24, 1988

8 BY:

Kenneth W. Kizer

9 Kenneth W. Kizer  
10 Director, Department of Health Services  
714 "P" Street  
11 Sacramento, CA 95814

12 DATED:

August 12, 1988

13 BY:

Karen Vercurse

14 Karen Vercurse  
15 Chair, Regional Water Quality Control  
16 Board, Central Valley Region  
3443 Routier Road  
Sacramento, CA 95827

17 DATED:

August 24, 1988

18 BY:

Kenneth W. Kizer

19 Kenneth W. Kizer  
20 Administrator, Hazardous Substance Account  
714 "P" Street  
Sacramento, CA 95814

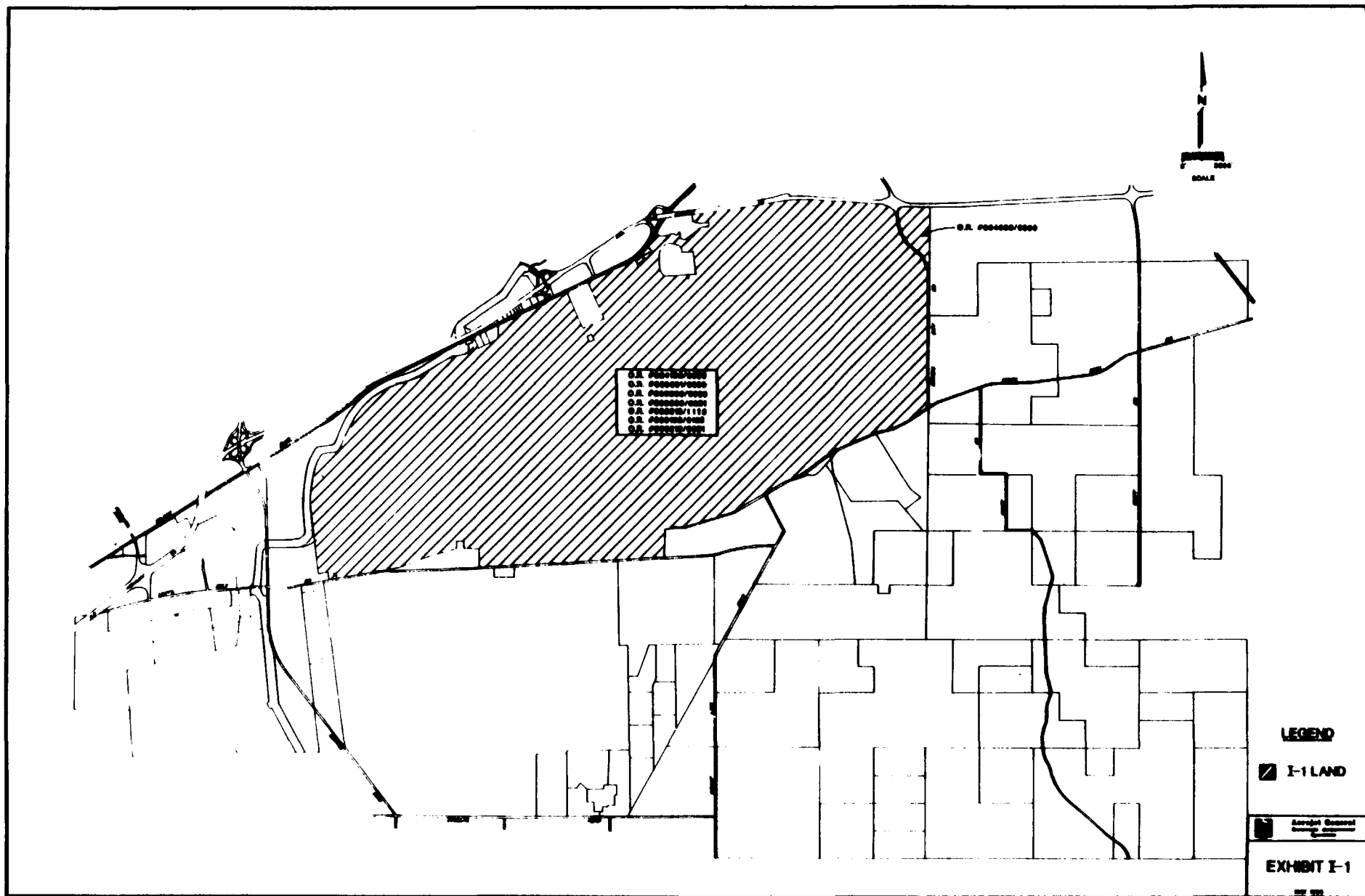
21 DATED:

August 29, 1988

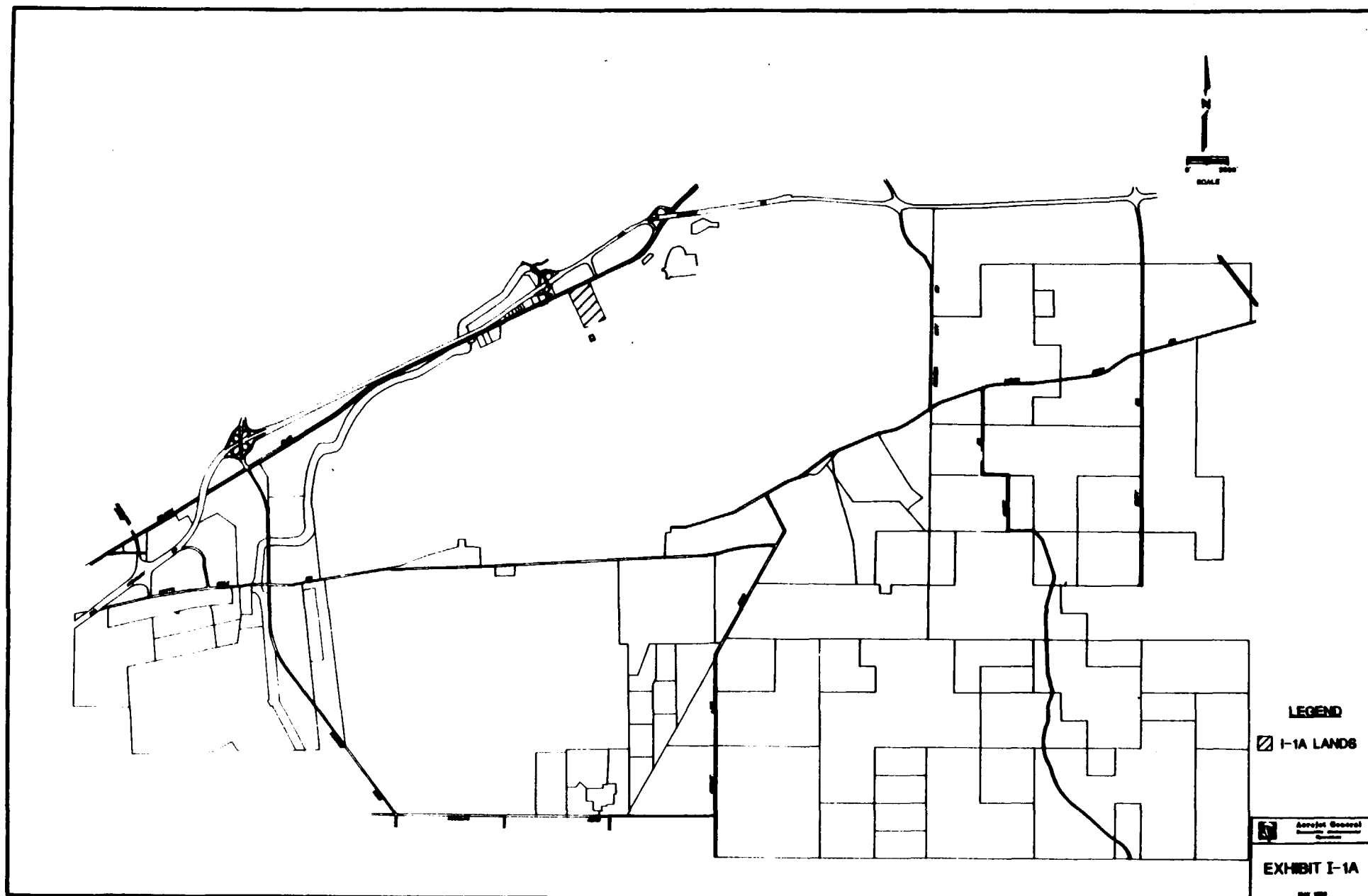
22 BY:

James Messersmith

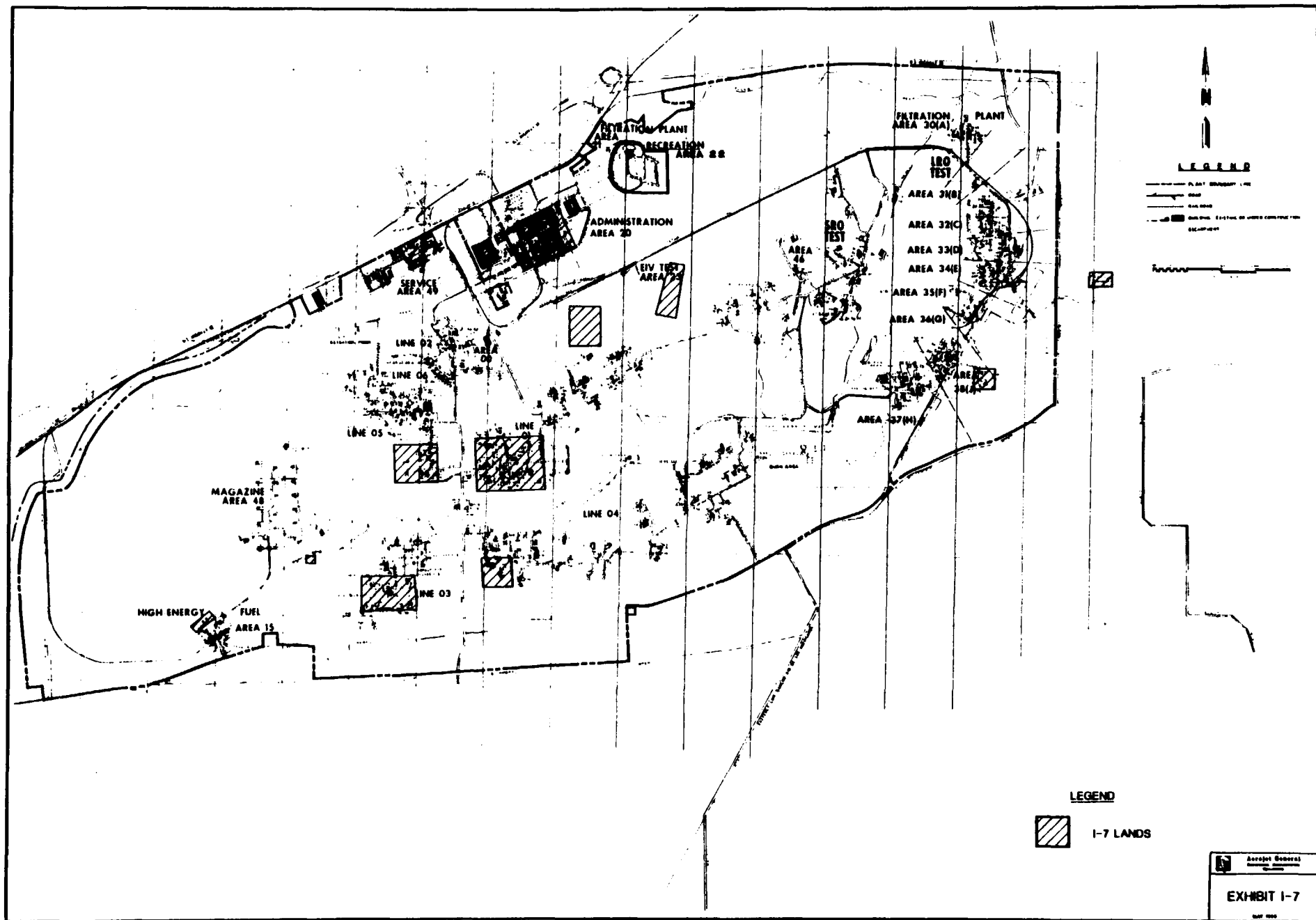
23 James Messersmith  
24 Regional Manager  
25 Region II  
26 California Department of  
27 Fish and Game  
28



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REDUCED FROM ORIGINAL-DO NOT SCALE

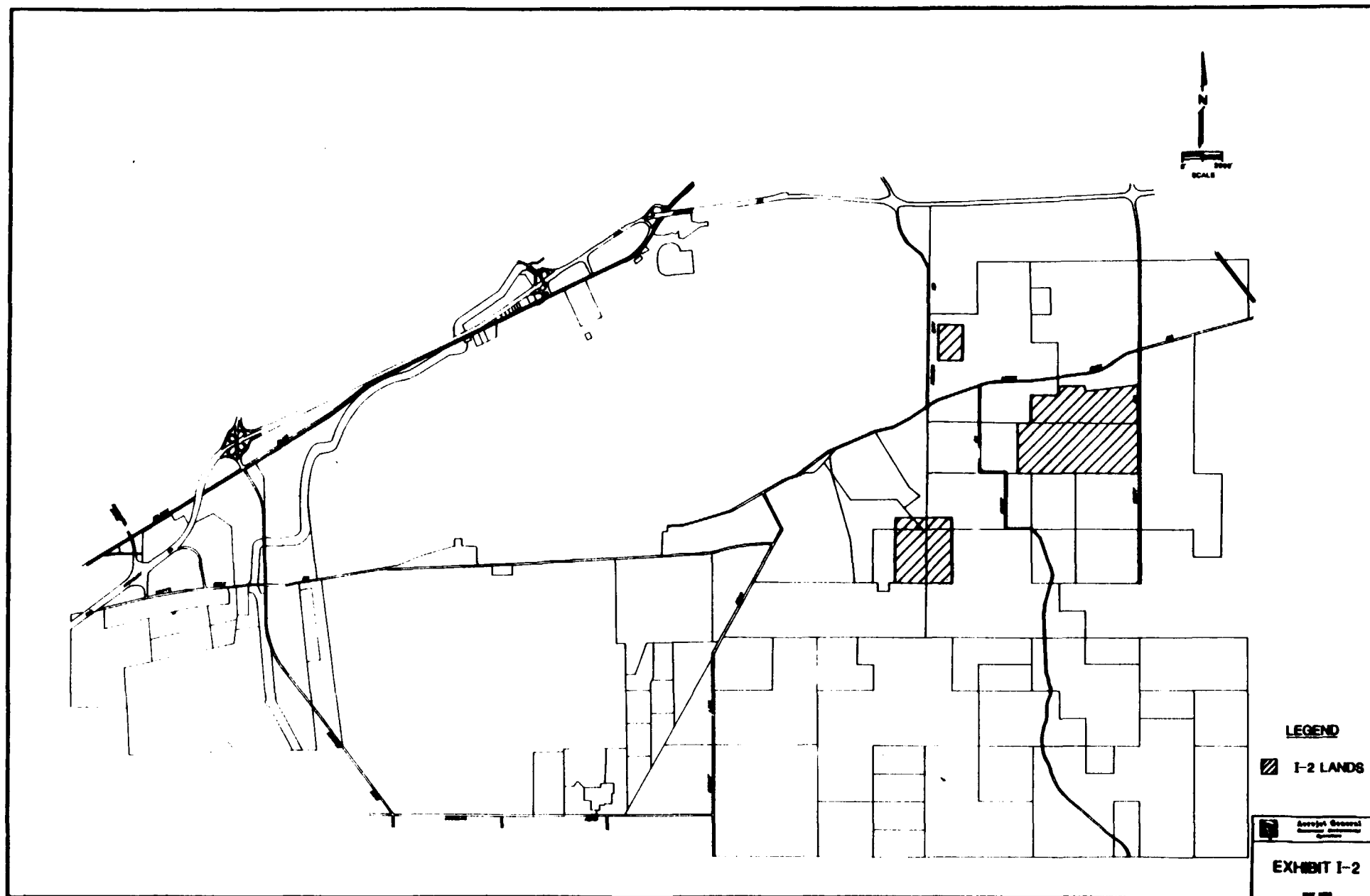


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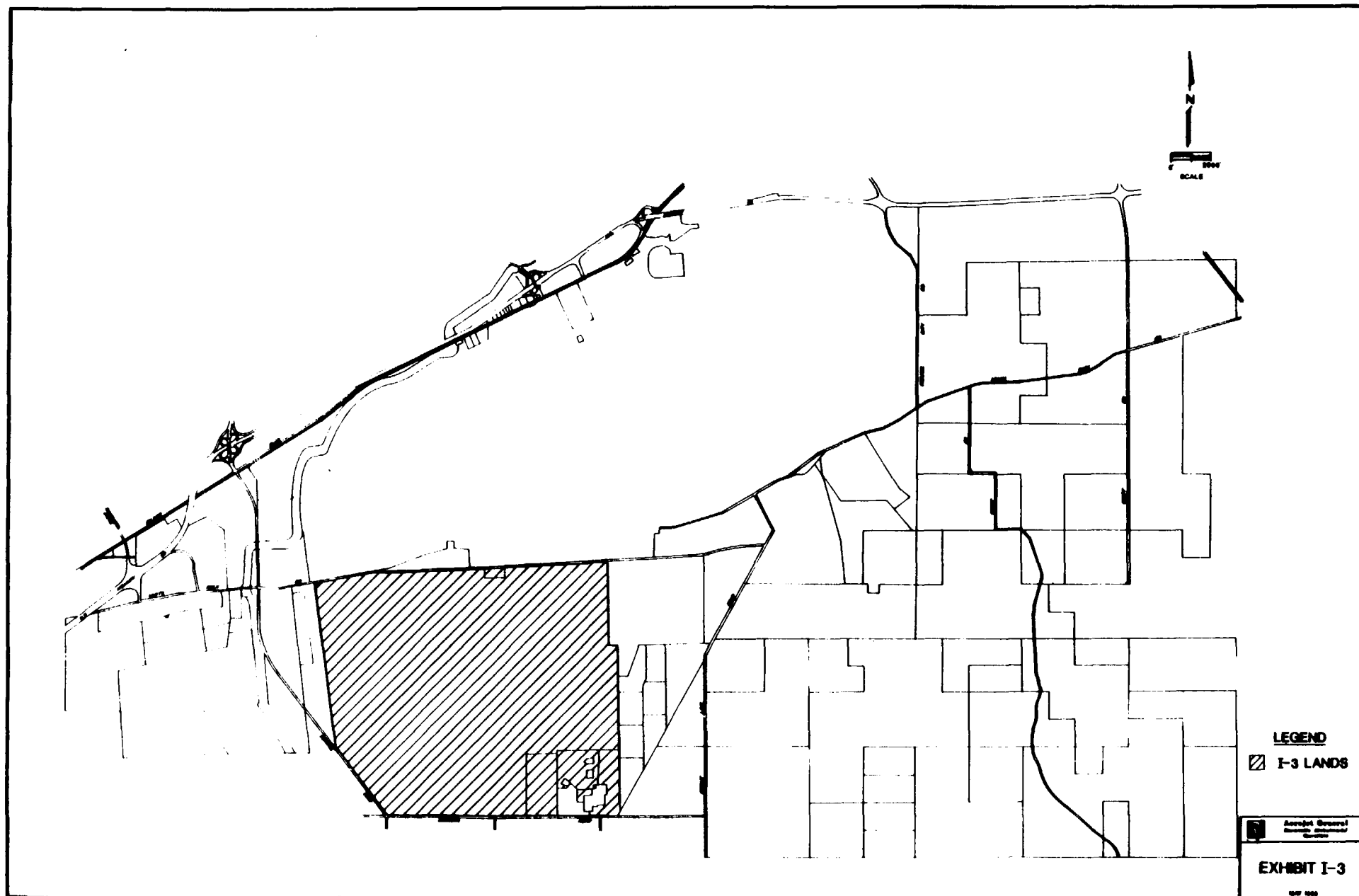


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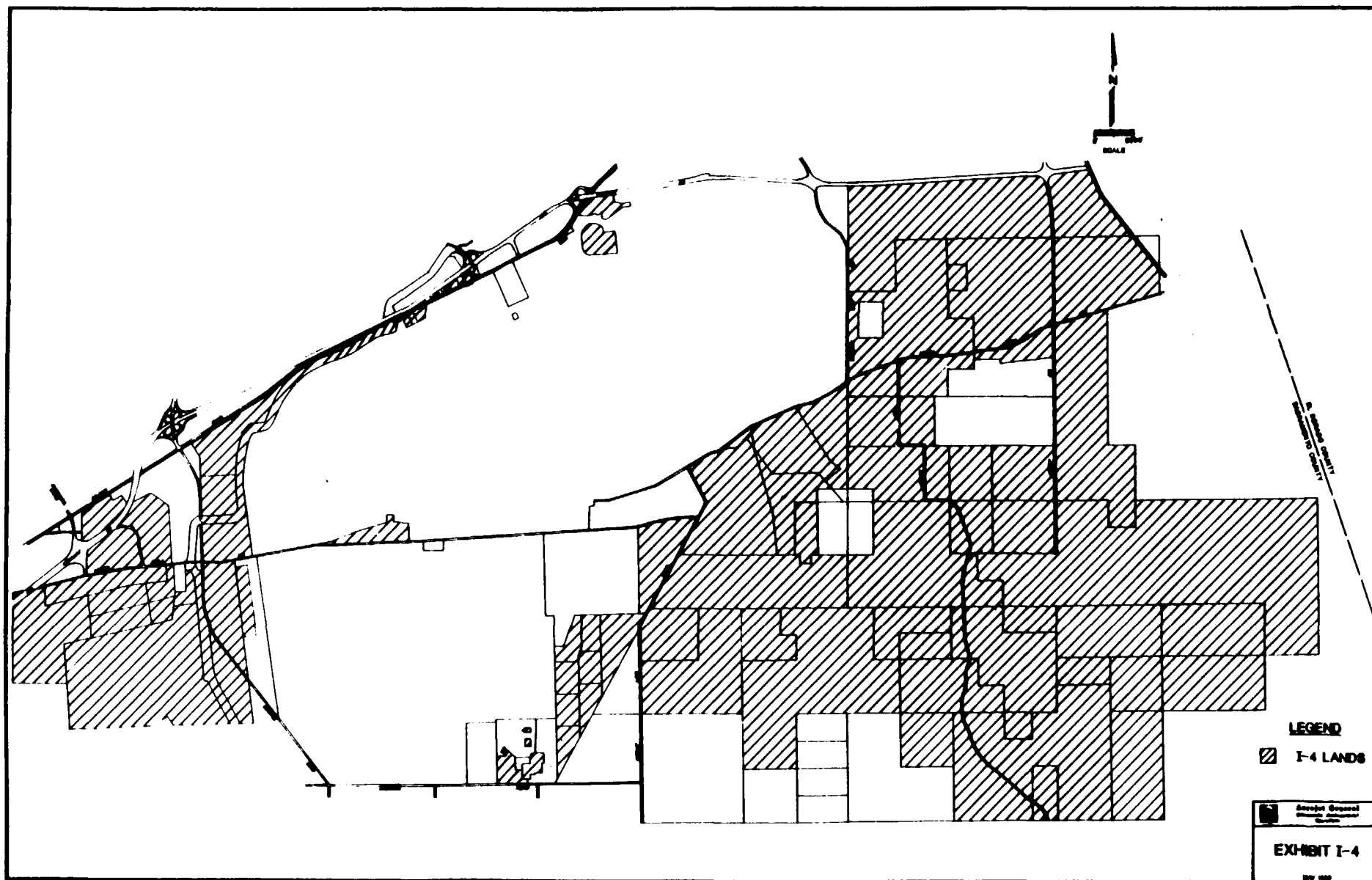




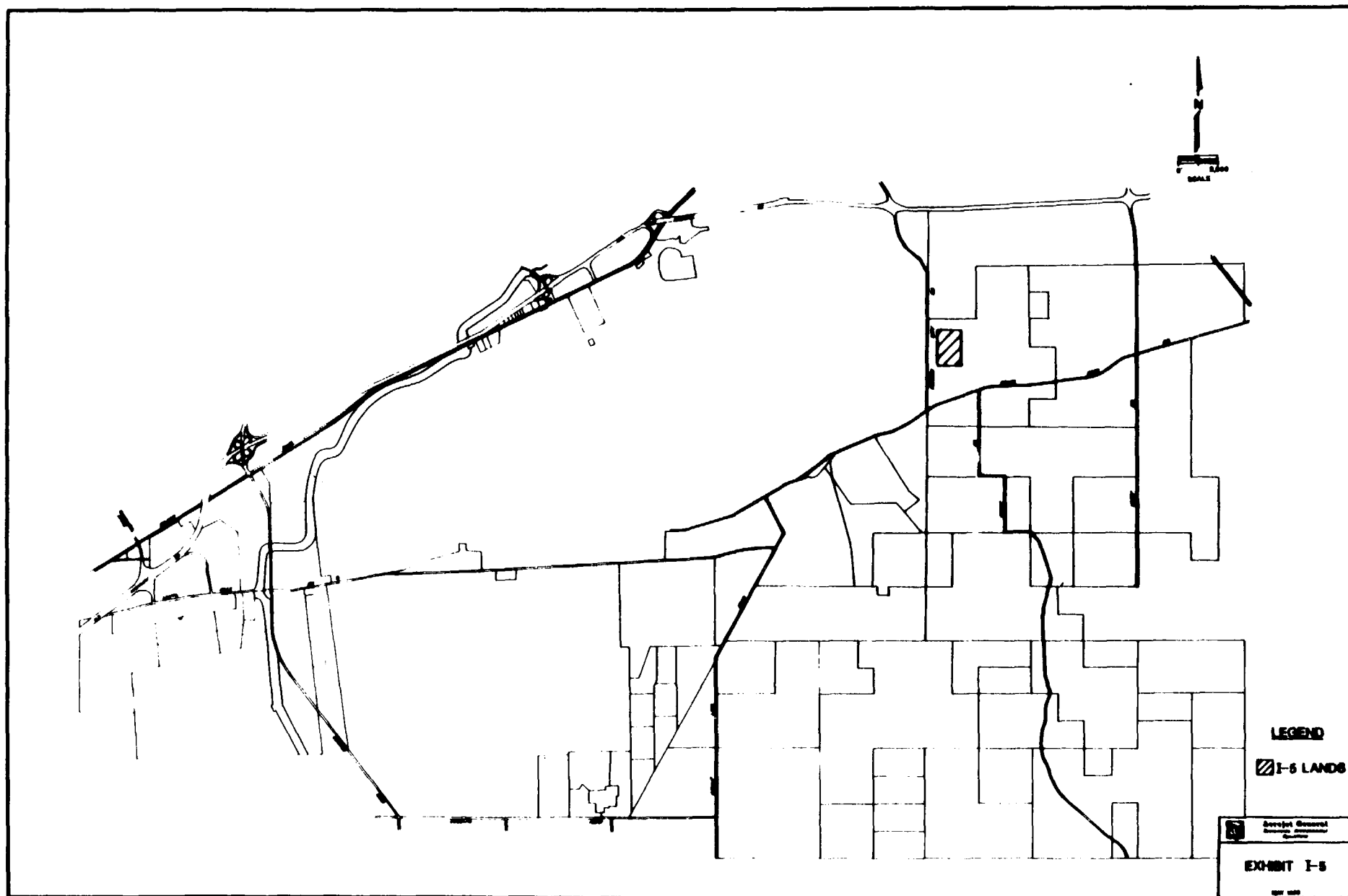
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REDUCED FROM ORIGINAL-DO NOT SCALE.



EXHIBIT II

RI/FS PROGRAM PLAN

I. OVERVIEW

A. INTRODUCTION. This Program Plan sets forth the program for completing the RI/FS for the Aerojet Site in a manner consistent with the NCP and addressing the factors set forth in California Health and Safety Code Section 25356.1(c).

The RI/FS will be conducted in three steps. During the first step, referred to as the "Scoping Phase", Aerojet will review, evaluate, and summarize information collected to date. During the second step, referred to as "Phase I RI/FS", Aerojet will collect and analyze field data and develop and initially screen remedial action alternatives. During the third and last step, referred to as "Phase II RI/FS", Aerojet will focus on the detailed evaluation of remedial alternatives.

Although the RI/FS will be conducted for the site as a whole, to facilitate management of the study, Phase I field work will be conducted in four geographic zones (see Figure 1). At the end of the Phase I RI/FS, Aerojet will present the results of Phase I work in a single Phase I RI/FS report. The approach and the tasks to be conducted under each step are described in the following sections. The schedule and identification of deliverables is contained in the section entitled "Program Deliverables and Schedule".

B. PROGRAM APPROACH. This section describes how this phased approach to the RI/FS will be conducted. The elements of this process are summarized below and described in detail

1 in Sections II through V. (An outline of the RI/FS tasks is  
2 presented in Table 1.)

3       •     SCOPING. In the Scoping phase, Aerojet will  
4 review, evaluate, and summarize information collected to  
5 date. At the end of this phase, Aerojet will submit a  
6 Scoping report that will present a current assessment of the  
7 site conditions and identify information necessary to  
8 complete a broad based, coherent understanding of the  
9 problems or potential problems associated with the release or  
10 threat of release of hazardous substances.

11       •     GET EFFECTIVENESS EVALUATION. Aerojet will  
12 evaluate the short-term effectiveness of the existing ground  
13 water extraction and treatment facilities (GET Facilities) in  
14 intercepting plumes of chemicals in the ground water at or  
15 near the boundary of the Aerojet-General Operating Plant.  
16 (Long term effectiveness will be evaluated in the Phase II  
17 RI/FS.) The GET effectiveness evaluation will be in two  
18 parts. The first part of the GET analysis will be an  
19 assessment of effectiveness based upon information collected  
20 to date. It will also identify additional information needed  
21 to complete the evaluation. The second part will involve the  
22 collection of information to fill data gaps, completion of a  
23 final report on GET effectiveness, and any recommendation for  
24 modification of the GET Facilities.

25       •     PHASE I RI/FS. The Phase I RI/FS focuses on  
26 collecting and analyzing field data to characterize  
27 adequately the nature of hazardous substances and the extent  
28 of their presence. These data are used in the Phase I RI/FS

1 for the assessment of risks to public health and the  
2 environment and the development and initial screening of  
3 remedial alternatives. The Phase I RI/FS begins with the  
4 Phase I RI/FS Work Plan which prescribes in detail the  
5 Phase I activities. Aerojet will submit a Phase I RI/FS  
6 Report, which documents the Phase I activities.

7       ° PHASE II RI/FS. Phase II is the detailed  
8 evaluation of the limited number of remedial alternatives  
9 that have passed the initial screening. This phase will  
10 begin with the Phase II Work Plan describing how the  
11 alternatives will be evaluated in detail and the data and  
12 other information needed to complete the detailed evaluation  
13 of those remedial alternatives. Field investigations  
14 conducted in this phase may include feasibility tests, bench  
15 scale or pilot testing of alternatives, and the collection of  
16 additional data to refine site characterization where  
17 necessary to perform the detailed evaluation of  
18 alternatives. The detailed evaluation of alternatives will  
19 start, to the extent practical, while the Phase II field  
20 investigations are being conducted, but the evaluation can  
21 only be completed following completion of the field  
22 investigations. Aerojet will submit a Phase II RI/FS Report,  
23 which documents the detailed evaluation of alternatives.

24       C. PROGRAM ORGANIZATION. Aerojet maintains an  
25 environmental staff whose function will include overseeing  
26 the RI/FS program. The Program Coordinator identified  
27 pursuant to Paragraph 15 of the Decree will serve as  
28 Aerojet's primary contact with governmental agencies.



1 Aerojet intends to retain the services of technical  
2 consultants to perform certain activities under the RI/FS.  
3 For informational purposes only, each work plan submitted  
4 pursuant to this Decree will describe the program  
5 organization including the chain of responsibility for major  
6 portions of work.

7 D. PROGRAM PROGRESS REPORTS. Aerojet will provide  
8 quarterly written progress reports to the Plaintiffs which  
9 describe the actions taken during the previous quarter.  
10 Reports will be submitted within twenty (20) days after the  
11 last day of each calendar quarter. Each report will include:

- 12 1. A description of activities undertaken toward  
13 completing work plan tasks;
  - 14 2. A summary of the changes in the work or work  
15 plan during the preceding quarter;
  - 16 3. The date any work plan task was completed;
  - 17 4. The activities scheduled for the next quarter  
18 toward completing work plan tasks (including all sampling  
19 events);
  - 20 5. The identification of any situation in the  
21 next quarter which may cause delay in undertaking planned  
22 activities and a summary of efforts made, if any, to mitigate  
23 the delay;
  - 24 6. The identification of any data collected and  
25 validated from the RI/FS activities under any work plan and  
26 not reported under Paragraph 18(G) of the Decree; and
  - 27 7. Changes in program organization.
- 28

TABLE 1. OUTLINE OF RI/FS PHASES AND TASKS

SCOPING PHASE

- 1.0 Site Description and History
- 2.0 Problem Definition
- 3.0 Identification of Preliminary Remedial Technologies
- 4.0 Preliminary Identification of Applicable or Relevant and Appropriate Requirements
- 5.0 RI/FS Data Requirements
- 6.0 Data Quality Objectives for the RI/FS
- 7.0 Validation of Existing Data
- 8.0 Management of the RI/FS
- 9.0 Operable Unit Analysis
- 10.0 Supporting Data

GET EFFECTIVENESS

- 1.0 Part 1: Evaluate Baseline GET Effectiveness
- 2.0 Submit Part 1 GET Effectiveness Report and Part 2 GET Effectiveness Work Plan
- 3.0 Conduct Part 2 GET Field Work
- 4.0 Prepare Part 2 GET Effectiveness Report

PHASE I RI/FS

- 1.0 Submit Phase I RI/FS Work Plan
  - 1.1 Sampling Plan
  - 1.2 QAPP
  - 1.3 Health and Safety Plan
- 2.0 Conduct Staged RI Field Investigations
  - 2.1 Conduct Stage 1 RI Investigations
  - 2.2 Submit Stage 1 RI Report and Stage 2 Sampling Plan
  - 2.3 Conduct Stage 2 RI Investigations
  - 2.4 Submit Stage 2 RI Report
- 3.0 Conduct Operable Unit Analysis
- 4.0 Identify Exposure Pathways

- 1 5.0 Develop Site-Wide Characterization of Site Conditions
- 2 6.0 Estimate Exposure Point Concentrations
- 3 7.0 Evaluate Risk of No-Action Remedial Alternative
- 4 8.0 Conduct Preliminary Phase I FS Activities (Zone-Based)
  - 5 8.1 Evaluate Potential Remedial Technologies
  - 6 8.2 Develop Remedial Action Alternatives
  - 7 8.3 Submit Alternatives Development Report
- 8 9.0 Conduct Final Phase I FS Activities (Site-Wide)
  - 9 9.1 Develop Site-Wide Remedial Action Alternatives
  - 9.2 Perform Site-Wide Initial Screening of Alternatives

10 10.0 Submit Phase I RI/FS Report

11 PHASE II RI/FS

- 12 1.0 Submit Phase II RI/FS Work Plan
- 13 2.0 Conduct Phase II Activities
  - 14 2.1 Conduct Additional Field Work, as Needed
  - 15 2.2 Conduct Detailed Analysis of Alternatives
- 16 3.0 Submit Phase II RI/FS Report

17 II. SCOPING PHASE. In the Scoping Phase, Aerojet will  
 18 review, evaluate and summarize information collected to  
 19 date. At the end of this phase, Aerojet will submit a  
 20 Scoping Report that will present a current assessment of the  
 21 site conditions and identify information necessary to  
 22 complete the Phase I RI/FS.

23 The Scoping Report will include, at a minimum, the  
 24 following items and, to the extent practical, will follow the  
 25 outline set forth below, but may change the order of  
 26 presentation.

- 27 1.0 Site Description and History
  - 28 1.1 Site Location

- 1           1.2    Environmental Setting
- 2               1.2.1    Geology
- 3               1.2.2    Hydrogeology (Regional and Local)
- 4               1.2.3    Surface Water
- 5               1.2.4    Meteorology
- 6               1.2.5    Physiography
- 7               1.2.6    Fauna and Flora (including threatened and  
8                           endangered species)
- 9               1.2.7    Land Use and Population (within and  
10                           beyond the Operating Plant)
- 11          1.3    Site History
- 12               1.3.1    History of Industrial Activities
- 13               1.3.2    History of Chemical Usage
- 14               1.3.3    Source Areas
- 15               1.3.4    Regulatory History
- 16               1.3.5    History of Response Actions
- 17          2.0    Problem Definition
- 18               2.1    Nature and Extent of Hazardous Substances
- 19                   2.1.1    Ground Water
- 20                   2.1.2    Surface Water
- 21                   2.1.3    Soil
- 22                   2.1.4    Air
- 23               2.2    Characteristics of Hazardous Substances
- 24               2.3    Initial Selection of Indicator Chemicals
- 25               2.4    Migration Pathways
- 26                   2.4.1    Ground Water
- 27                   2.4.2    Surface Water
- 28                   2.4.3    Soil
- 29                   2.4.4    Air
- 30          2.5    Potential Receptors
- 31               2.5.1    Human
- 32               2.5.2    Environmental
- 33          3.0    Identification of Preliminary Remedial Technologies
- 34          4.0    Preliminary Identification of Applicable or Relevant  
35                   and Appropriate Requirements
- 36          5.0    RI/FS Data Requirements
- 37               5.1    Site History Data
- 38               5.2    Data on Environmental Setting and Migration  
39                           Pathways
- 40                   5.2.1    Geology

- 1                   5.2.2    Hydrogeology
- 2                   5.2.3    Soils
- 3                   5.2.4    Surface Water
- 4                   5.2.5    Air Quality and Meteorological Data
- 5                   5.3     Data on Nature and Extent of Hazardous Substances
- 6                   5.4     Data on Potential Receptors
- 7                   5.5     Hazardous Substance Characteristic Data
- 8                   5.6     Data for Development and Initial Screening of
- 9                         Remedial Alternatives
- 10                  6.0     Data Quality Objectives for the RI/FS
- 11                  7.0     Validation of Existing Data
- 12                  8.0     Management of the RI/FS
- 13                    8.1     Grouping of Source Areas
- 14                    8.2     Study Area Division
- 15                  9.0     Operable Unit Analysis
- 16                  10.0    Supporting Data

17                  The following section parallels the outline, describes  
18                  what is expected for the major elements of the Scoping Report  
19                  and provides guidance on the major tasks to be conducted in  
20                  the Scoping Phase of the RI/FS program.

21                    1.0     Site Description and History

22                         1.1     Site Location

23                         1.2     Environmental Setting.   Using existing  
24                   site data, Aerojet will provide a detailed description of the  
25                   environmental setting. At a minimum, Aerojet will discuss  
26                   each aspect of the environmental setting listed in the  
27                   detailed outline. Aerojet will describe any specific data  
28                   necessary to understand significant features of the site or  
29                   limitations of the description of the environmental setting.  
30                   For example, Aerojet will describe the general hydrogeologic  
31                   system and discuss any specific data indicating anomalous  
32                   hydraulic gradients.

1                   1.3    Site History.   Aerojet will describe the  
2 history of site use and potential chemical releases at a  
3 level of detail sufficient to aid in (1) determining what  
4 further investigative activities are needed, and  
5 (2) developing remedial alternatives. Aerojet will also  
6 provide a general summary of the environmental regulatory  
7 history.

8                   2.0    Problem Definition.

9                   2.1    Nature and Extent of Hazardous  
10 Substances.   Aerojet will assess the nature of hazardous  
11 substances and extent of their presence. Data will be  
12 evaluated for the following media: ground water, surface  
13 water, soils, and air. Ground water and soil conditions will  
14 be assessed in terms of the concentrations of hazardous  
15 substances and their vertical and areal distribution. The  
16 evaluation of surface water will include an assessment of the  
17 nature and frequency of hazardous substance release into  
18 surface waters and the impact of those releases on surface  
19 water quality. Air emissions from existing GET facilities  
20 and potential source areas will be evaluated for potential  
21 impact on local and regional air quality.

22                   2.2    Characteristics of Hazardous Substances.  
23 Through review of existing literature, Aerojet will conduct a  
24 preliminary assessment of toxicity and physical properties of  
25 hazardous substances released at the Site. The information  
26 presented here will assist in the selection of indicator  
27 substances.  
28

### 2.3 Initial Selection of Indicator

Chemicals. Aerojet will develop an initial list of indicator chemicals which will serve to focus the Phase I RI/FS work and support the evaluation of the baseline risk of the no-action alternative. The indicator chemical selection process will identify chemicals of greatest concern at the site based largely on measured concentrations, toxicity data, physical and chemical parameters, environmental mobility and persistence. The initial list will include both potential carcinogens and noncarcinogens, as appropriate. The list of indicator chemicals will be finalized during the Phase I RI/FS.

2.4 Migration Pathways. Aerojet will use existing data regarding the environmental setting and the nature and extent of hazardous substances currently known to assess the pathway or pathways within each medium for transport of hazardous substances. Aerojet will describe currently predicted rates and directions of travel as well as the estimated hazardous substance flux.

2.5 Potential Receptors. Aerojet will use information from the assessment of the environmental setting together with the information on the migration pathways to assess what human and environmental receptors may be exposed to hazardous substances from the site. This assessment will be general in nature. Aerojet will generally describe what portion of what biota and population identified in the environmental setting section might be exposed over time to site hazardous substances from the site.

1           3.0   Identification of Preliminary Remedial  
2   Technologies. During the Scoping Phase effort, Aerojet will  
3   identify those remedial technologies which could be  
4   applicable at the site. (Further evaluation of these  
5   technologies will take place during Phases I and II of the  
6   RI/FS.) Due to the size and complexity of the site, a number  
7   of technologies are expected to be considered. These  
8   technologies may be applicable to large areas where hazardous  
9   substances are present or to more discrete sources.

10           Based on existing site data and types of remedial  
11   actions anticipated or currently in effect, a list of  
12   potential remedial technologies will be developed.  
13   Technologies will most likely be grouped as to method of  
14   control.

15           4.0   Preliminary Identification of Applicable or  
16   Relevant and Appropriate Requirements. Aerojet will  
17   preliminarily identify hazardous substance and location  
18   specific ARARs for the Aerojet site from a list provided by  
19   Plaintiffs of potentially applicable or relevant and  
20   appropriate standards, requirements, criteria or limitations  
21   (ARARs), as those terms are used in Section 121(d) of SARA.  
22   Plaintiffs shall provide this list no later than ninety (90)  
23   days before the date for submission of the Scoping Report.

24           5.0   RI/FS Data Requirements. In Sections 1.0 and  
25   2.0, Aerojet will describe what information about the site is  
26   currently known. In this section, Aerojet will discuss what  
27   aspects of the site and attendant public health and  
28   environmental issues are either unknown or uncertain.



1 Aerojet will describe generally and, where appropriate,  
2 specifically, the information necessary to (1) complete a  
3 broad-based, coherent assessment of the environmental  
4 setting, the site history, the nature and extent of hazardous  
5 substances, the hydrogeology, the migration pathways, and the  
6 potential receptors, and (2) develop and screen remedial  
7 alternatives. These data requirements will form the basis  
8 for work proposed in the Phase I RI/FS Work Plan.

9           6.0   Data Quality Objectives for the RI/FS. Data  
10 quality objectives (DQOs) will be defined to identify the  
11 level of quality needed during the RI/FS. Data quality  
12 refers to the degree of uncertainty with respect to  
13 precision, accuracy, reproducibility, and comparability of a  
14 data set. DQOs represent different quality levels required  
15 for the data to be used for screening, engineering, or  
16 confirmational purposes (see below).

17           7.0   Validation of Existing Data. Aerojet will  
18 perform a quality assurance/quality control check (QA/QC) of  
19 the historical data in accordance with the Validation Plan  
20 for Historic Data (Exhibit II-1 of the Decree). The QA/QC  
21 will address the following issues: validation of sampling  
22 methods used to obtain samples; validation of laboratory  
23 data; and validation of the data management procedures used  
24 in entering the sampling and laboratory data into the  
25 computer data base.

26           Aerojet will review the validated database to define  
27 what data are applicable for the following identified  
28 purposes:

° Site Screening Data (DQO Levels 1 and 2).

These data provide the lowest data quality but the most rapid results, and are used for purposes of site health and safety monitoring, initial site characterization to define areas for further study, and engineering screening of alternatives.

° Site Characterization and Engineering Data

(DQO Levels 2 and 3). These data provide an intermediate level of data quality for site characterization and risk assessment.

° Confirmational Data (DQO Level 4).

Confirmational data provide a high level of data quality and documentation and are used for verifying screening-and-engineering-quality data, risk assessment, and engineering design.

In this section of the Scoping Report, Aerojet will explain the historic data validation process, present the criteria used and summarize the results. The validated historic database will be submitted as part of the Scoping Report. Any of this information that relates to historic data used in the GET Effectiveness Study will be presented in the Part 1 GET Effectiveness Report.

8.0 Management of the RI/FS.

8.1 Grouping of Source Areas. To facilitate

the risk assessment and initial screening and detailed evaluation of remedial action alternatives, individual source areas identified in Exhibit III-1 (and Exhibit III-2, if appropriate) will be evaluated for grouping into study units or other groupings.

1       Aerojet will assess possible source area groupings based  
2       upon information regarding the environmental setting,  
3       migration pathways, historical site operations, and  
4       development of potential remedial technologies.

5               8.2   Study Area Division. Based on its review  
6       of existing data, Aerojet will, on a map, identify the site,  
7       known limits of migration of hazardous substances from the  
8       site, the currently identified boundaries of Phase I RI/FS  
9       zones (which will be shown as extending offsite to known  
10      limits of migration) and any source area study units.

11             9.0   Operable Unit Analysis. Based on work  
12      performed to date, and not intending Aerojet to accelerate  
13      analyses to be conducted at a later stage of the RI/FS,  
14      Aerojet will assess whether a study of operable units  
15      (operable unit feasibility study) to manage migration of  
16      chemical plumes or highly concentrated portions of plumes or  
17      manage significant migration of chemicals from the vadose  
18      zone into ground water is warranted. At a minimum, Aerojet  
19      will assess whether an operable unit implemented during the  
20      period before determination of the appropriate final remedy  
21      will potentially:

22             •       Significantly reduce the threat to public  
23      health or the environment; or

24             •       Further the goals of a final remedy by  
25      significantly reducing (a) cleanup costs, or (b) cleanup time.

26             Aerojet's conclusion or recommendation as to the  
27      appropriateness of an operable unit feasibility study shall  
28      not be subject to dispute.

10.0 Supporting Data. Aerojet will reference, include, or summarize, as appropriate: (1) the information collected to date upon which the Scoping Report is based, and (2) data contained in the computer base but not used in developing the Scoping Report. With respect to the latter, Aerojet will explain in the report why such data were not used.

III. GET EFFECTIVENESS. Aerojet will evaluate the short-term effectiveness (the next 5 to 10 years after entry of the Decree) of the existing GET facilities in intercepting the migration of chemicals in ground water at or near the Aerojet Operating Plant boundary. The GET effectiveness review will be conducted in two parts. In Part 1, Aerojet will evaluate information to date on GET effectiveness and identify information needed to complete the assessment. In Part 2, Aerojet will collect the information identified in Part 1 through field activities and associated analyses to complete the evaluation of GET effectiveness.

The tasks associated with the GET Effectiveness review are described below.

1.0 Part 1: Evaluate GET Effectiveness Based on Existing Data. In the GET Effectiveness Part 1 effort, Aerojet will utilize existing data to conduct a preliminary evaluation of the short-term effectiveness of the D, E, F, A and B GET Facilities. Aerojet will evaluate both the hydraulic zone of capture and the effectiveness of that zone in intercepting the migration of chemicals. Aerojet will

1 evaluate effectiveness considering geologic information,  
2 trends in water quality and water level data, and vertical  
3 and horizontal hydraulic gradients.

4 2.0 Submit Part 1 GET Effectiveness Report and  
5 Part 2 GET Effectiveness Work Plan. The Part 1 GET  
6 Effectiveness Report will document the Part 1 activities and  
7 present Aerojet's preliminary evaluation of short-term GET  
8 effectiveness and identify data needed to complete the  
9 assessment of short-term GET effectiveness. The evaluation  
10 will be based upon data validated pursuant to the Validation  
11 Plan for Historic Data (Exhibit II-1). The validated data  
12 used in the analysis will be presented in the report. The  
13 Part 1 report will also contain a work plan for the Part 2  
14 effort.

15 Field data needed to verify short-term effectiveness of  
16 the GET Facilities will likely be limited. Should  
17 significant field work be necessary, the field work may be  
18 coordinated with Phase 1 RI field work, unless protection of  
19 public health and the environment warrants accelerated GET  
20 effectiveness field work. Such coordination will avoid the  
21 potential for duplication of effort or other inefficiencies.  
22 If field work will be undertaken before the Phase I RI/FS  
23 Work Plan is submitted, relevant sections of the Site Quality  
24 Assurance Project Plan (QAPP), Health and Safety Plan, and  
25 Sampling Plan will be submitted as part of the Part 2 GET  
26 Effectiveness Work Plan.

27 3.0 Conduct Part 2 GET Effectiveness Work.  
28 Aerojet will conduct Part 2 GET field work and analysis in  
PARTIAL CONSENT DECREE

1 accordance with the approved Work Plan and Sampling Plan  
2 submitted as part of the Work Plan. If it is determined that  
3 use of a ground water flow model is necessary to analyze the  
4 data, Aerojet will propose such a model in the Part 2 GET  
5 Effectiveness Work Plan.

6 4.0 Prepare Part 2 GET Effectiveness Report.

7 Aerojet will prepare a report on the results of the Part 2  
8 GET effort. The report will evaluate the short-term  
9 effectiveness of the GET facilities in intercepting the  
10 migration of chemicals in ground water at or near the Aerojet  
11 Operating Plant boundary. Aerojet will make recommendations,  
12 as appropriate, for any changes in the design or operation of  
13 the GET facilities. Any recommendation for change will not  
14 be subject to dispute.

15  
16 IV. PHASE I RI/FS. The Phase I RI/FS focuses on  
17 characterizing the nature and extent of the release or threat  
18 of release of hazardous substances, and the development and  
19 initial screening of alternatives. Data derived during the  
20 Phase I RI/FS (primarily through field sampling and  
21 laboratory analyses and modeling) will be used to  
22 characterize and assess public health and environmental  
23 risks, routes of exposure, the fate and transport of  
24 chemicals, and likely human and environmental receptors as  
25 necessary to evaluate potential remedial alternatives. The  
26 detailed scope of Phase I field activities will be based upon  
27 data gaps identified in the Scoping Report.

28 Field activities and preliminary FS activities in  
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1 Phase I will be performed in four zones to facilitate  
2 prioritization of field efforts and the submission of interim  
3 deliverables. The boundaries of the four zones are generally  
4 depicted in Figure 1, and will be more specifically  
5 identified in the Phase I RI/FS Work Plan. The zone  
6 boundaries are not fixed, but may change based on data  
7 collected during the Phase I RI. The zone boundaries reflect  
8 generalized differences in regional ground water flow and  
9 distribution of source areas; however, the complex nature of  
10 the ground water flow, geologic anomalies, and source area  
11 distributions limit the use of zones and the RI/FS will be  
12 completed for the site as a whole.

13 The field sampling activities will be conducted in two  
14 stages for each zone. Stage 1 will involve the collection of  
15 the bulk of field data for each zone. Stage 2 RI activities  
16 will include the collection of any additional data identified  
17 as a result of the analysis of Stage 1 data or during the  
18 preliminary development of alternatives. The Phase I RI/FS  
19 Work Plan and the Stage 2 Sampling Plans will schedule field  
20 work in each stage as practicable to allow completion of such  
21 work first in Zone 1, second in Zone 2, third in Zone 3, and  
22 fourth in Zone 4.

23 Feasibility Study activities conducted during the  
24 Phase I RI/FS will include the evaluation of potential  
25 remedial technologies, the development of remedial action  
26 alternatives, and the initial screening of these alternatives  
27 for the entire site. Preliminary remedial action  
28 alternatives for each zone will be based on information

1 obtained during the zone-based Stage 1 RI efforts.

2 Once the Stage 1 and 2 field investigations and  
3 preliminary FS activities are complete, the information will  
4 be used to develop a single, final Phase I RI/FS Report for  
5 the Aerojet site. The RI reports will be integrated into a  
6 single assessment of the site and the preliminary zone-based  
7 remedial action alternatives will be compiled and developed  
8 into a range of remedial action alternatives. These remedial  
9 action alternatives will then undergo an initial screening  
10 considering the implementation of the alternatives on a  
11 site-wide basis.

12 Major tasks under the Phase I RI/FS include the  
13 following:

14 1.0 Submit Phase I RI/FS Work Plan. The Phase I  
15 RI/FS Work Plan will detail the work to be conducted under  
16 the Phase I RI/FS including types of field investigation and  
17 data collection activities to be performed and analytical  
18 methods to evaluate the sampling data. The work plan will  
19 describe the types of information to be collected, the  
20 process for collecting the information, the analytical  
21 activities, the data quality required, and a rationale for  
22 the data collection activities. The work plan will also  
23 delineate the process by which remedial action alternatives  
24 will be developed and initially screened.

25 The work plan will address the evaluation and  
26 implementation of analytical tools as necessary to  
27 characterize the site and to evaluate exposure pathways and  
28 concentrations. Analytical tools may include regional and  
PARTIAL CONSENT DECREE



1 local ground water flow models and chemical transport models.

2 The work plan will specify the schedule for initiation  
3 and completion of Stage 1 work in all zones. (The Stage 2 RI  
4 Sampling Plans will specify end points for completion of  
5 Stage 2 work.) The Phase I RI/FS Work Plan will include  
6 anticipated end-dates for submission of all reports and plans  
7 generated within the Phase I RI/FS.

8 The Phase I RI/FS Work Plan will include the following  
9 plans:

10 1.1 Stage 1 Sampling Plan. A sampling plan  
11 will be submitted to document the location, rationale, type,  
12 number, and procedures used for collecting samples during  
13 Stage 1 of the RI. The sampling plan will set forth this  
14 information according to zone. A single schedule of  
15 activities, separately stated by zone, will be presented to  
16 allow for the most efficient collection of field data.  
17 Aerojet may propose revisions to this schedule to incorporate  
18 changes in schedules for previously approved sampling as a  
19 result of any Stage 2 Sampling Plan. As mentioned  
20 previously, the field investigations will proceed on a zone  
21 basis.

22 1.2 QAPP.

23 A Quality Assurance Project Plan (QAPP) will be prepared for  
24 the RI/FS investigations. The QAPP will detail the policies,

25 //

26 //

27 //

28 //

organization (including personnel qualifications consistent with 22 California Code of Regulations 67605), objectives, functional activities, and quality control activities, including the elements specified in 22 California Code of Regulations 67602(a), used to achieve the data quality goals of the investigation.

1.3 Health and Safety Plan. A Health and Safety Plan specific to the field investigations will be detailed in the Stage 1 Sampling Plan. The Health and Safety Plan will be formulated to comply with OSHA regulations.

2.0 Conduct Staged RI Field Investigations.

2.1 Conduct Stage 1 RI Investigations. Field investigations and laboratory analyses presented in the Stage 1 Sampling Plan will be conducted for each zone.

2.2 Submit Stage 1 RI Report and Stage 2 Sampling Plan. A Stage 1 RI Report for each zone will be submitted in accordance with the approved schedule. The report will present the results of Stage 1 sampling as it affects site characterization. A list of final indicator chemicals, based on the factors described previously in Section 2.3 of Scoping, will be included in each Stage 1 report. Aerojet will identify any further sampling needed for the zone in Stage 2 in order to complete the Phase I RI/FS, and will develop a Stage 2 Sampling Plan for this field work. The sampling plan will set forth the schedule for Stage 2 activities, including submittal of the Stage 2 Report, any proposed schedule modifications to approved Stage 1 or Stage 2 work in other zones to accommodate such

1 activities, and, if appropriate, modifications to the  
2 existing QAPP and Health and Safety Plan.

3 2.3 Conduct Stage 2 RI Investigations.

4 Following approval of the Stage 1 Report and Stage 2 Sampling  
5 Plan, Aerojet will complete Phase I field work efforts in  
6 each zone. It is anticipated that these field activities and  
7 analyses will be limited in scope and will reflect any  
8 additional data needs and other information identified during  
9 review of the Stage 1 data or during the development of the  
10 preliminary remedial action alternatives for the zone.

11 2.4 Submit Stage 2 RI Report. A Stage 2 RI

12 Report will be submitted for each zone in accordance with the  
13 schedule specified in the Stage 2 Sampling Plan. The Stage 2  
14 Report will serve as an addendum to the Stage 1 RI Report to  
15 document completion of the Stage 2 activities and present any  
16 revisions to the understanding of the nature of the hazardous  
17 substances and the extent of their presence.

18 3.0 Conduct Operable Unit Analysis. Based on work

19 performed to date, and not intending Aerojet to accelerate  
20 analyses to be conducted at a later stage of the RI/FS,  
21 Aerojet will assess whether a study of operable units  
22 (operable unit feasibility study) to manage migration of  
23 chemical plumes or highly concentrated portions of plumes or  
24 manage significant migration of chemicals from the vadose  
25 zone into ground water is warranted. At a minimum, Aerojet  
26 will assess whether an operable unit implemented during the  
27 period before determination of the appropriate final remedy  
28 will potentially:

1                   •     Significantly reduce the threat to public  
2 health or the environment; or

3                   •     Further the goals of a final remedy by  
4 significantly reducing (a) cleanup costs, or (b) cleanup time.

5           Aerojet's conclusion or recommendation as to the  
6 appropriateness of an operable unit feasibility study shall  
7 not be subject to dispute.

8           4.0     Identify Exposure Pathways. Using data  
9 compiled in the Scoping Report and information collected in  
10 the Phase I RI/FS, Aerojet will identify pathways for  
11 exposure of indicator chemicals to human and environmental  
12 receptors. The results of this task will be documented in an  
13 Exposure Pathway Report to be submitted by Aerojet.

14           5.0     Develop Site-Wide Characterization of Site  
15 Conditions. The Stage 1 and 2 RI Reports for each zone will  
16 be integrated along with any other pertinent work not already  
17 reported to provide a broad-based, coherent characterization  
18 of site conditions. Analytical tools developed under the  
19 work plan may be used to support the characterization.

20           6.0     Estimate Exposure Point Concentrations. Based  
21 on the information developed in the Phase I RI, Aerojet will  
22 estimate concentrations of final indicator chemicals at  
23 points where human and/or environmental receptors are exposed  
24 to such chemicals. The baseline concentration of indicator  
25 chemicals at exposure points will be compared to ARARs  
26 identified in Section 4.0 of Scoping and other criteria,  
27 advisories, and guidelines. Aerojet will submit the results  
28 of the above in an Exposure Point Concentration Report.

## 7.0 Evaluate Risk of No-Action Remedial

Alternative. A risk assessment of baseline conditions (no-action remedial alternative) for the site will be developed by the Plaintiffs during the Phase I RI/FS. This assessment will be consistent with the NCP and will be based in part on the site information, specifically selection of indicator chemicals and assessment of exposure, developed by Aerojet during the Scoping and Phase I RI/FS work. The Plaintiffs will utilize this information to characterize the risk of the no-action alternative. The Plaintiffs' risk characterization effort will consist of: an estimation of intake of indicator chemicals by human and environmental receptors; the collection or development, where necessary, of toxicity values for all indicator chemicals; and the combination of intake levels and toxicity values to estimate risk. The Plaintiffs will present their evaluation of the risk of baseline conditions in a Risk Characterization Report to be developed and provided to Aerojet prior to Aerojet's completion of the Phase I RI/FS. Aerojet reserves the right to develop its own risk characterization, but must use Plaintiffs' report as provided in Section V(2.2) below.

## 8.0 Conduct Preliminary Phase I FS Activities

(Zone-Based). As part of the Phase I RI/FS, Aerojet will preliminarily conduct certain FS activities on a zone basis prior to conducting these same activities on a site-wide basis. These activities include the evaluation of potential remedial technologies and the development of remedial action alternatives (which may incorporate one or more of the

1 technologies). The protocols for developing alternatives on  
2 a zone basis and for the site as a whole are largely the same.

3 The zone-based FS activities will focus on the  
4 development of preliminary remedial action alternatives and  
5 will be based on information obtained during the staged RI  
6 field efforts and documented in the Stage 1 RI Reports.  
7 Accordingly, once the staged RI information is compiled and  
8 evaluated for the Aerojet Site as a whole, final site-wide  
9 remedial action alternatives will be developed. These  
10 alternatives will undergo an initial screening to yield a set  
11 of alternatives to be evaluated in detail in the Phase II  
12 RI/FS.

13 Aerojet will conduct the following Phase I zone-based FS  
14 tasks:

15 8.1 Evaluate Potential Remedial  
16 Technologies. Remedial technologies identified during the  
17 Scoping Phase will be evaluated for use with specific  
18 chemical groups and specific locations. The technologies  
19 potentially applicable to site conditions may be rated to  
20 facilitate their incorporation into remedial action  
21 alternatives. A possible rating system is as follows:

- 22 ++ strong candidate for further evaluation  
23 + possible candidate, requires supporting work;  
24 ° possible candidate, minor drawbacks;  
25 - not probably candidate, major drawbacks;  
26 -- not a candidate, infeasible; and  
27 NA not applicable.

28 8.2 Develop Remedial Action Alternatives.

1 Following the initial identification of technologies and  
2 during the conduct and documentation of the Stage 1 RI field  
3 work, remedial alternatives will be developed for each zone.

4 8.3 Submit Alternatives Development Report.

5 Aerojet will submit a report for each zone describing the  
6 remedial action alternatives developed for that zone.

7 9.0 Conduct Final Phase I FS Activities

8 (Site-Wide). Following completion of the zone-based RI and  
9 FS activities, Aerojet will develop remedial action  
10 alternatives for the site as a whole based on the site-wide  
11 characterization. These alternatives will then undergo an  
12 initial screening resulting in a set of alternatives which  
13 will undergo a detailed evaluation in the Phase II RI/FS.

14 9.1 Develop Site-Wide Remedial Action

15 Alternatives. Based on the development of the zone  
16 alternatives and the site-wide characterization, Aerojet will  
17 develop a range of remedial action alternatives consistent  
18 with the NCP and Plaintiffs' risk characterization of the  
19 baseline conditions. Aerojet may develop additional  
20 alternatives to reflect its understanding of risk, should  
21 this differ from Plaintiffs' assessment.

22 9.2 Perform Site-Wide Initial Screening of

23 Alternatives. Aerojet will perform an initial screening of  
24 site-wide remedial action alternatives in accordance with the  
25 NCP.

26 10.0 Submit Phase I RI/FS Report. A Phase I RI/FS

27 Report will be submitted which will document site-wide RI and  
28 FS activities. Included within this document will be the

1 Plaintiffs' Risk Characterization Report.

2  
3 V. PHASE II RI/FS ACTIVITIES. The Phase II RI/FS  
4 principally involves the detailed evaluation of the limited  
5 number of remedial alternatives that have passed the initial  
6 screening. The phase will begin with a work plan describing  
7 how the alternatives will be evaluated in detail and the data  
8 needed to complete the detailed evaluation of those remedial  
9 alternatives. Field investigations conducted in this phase  
10 may include feasibility tests, bench scale or pilot testing  
11 of alternatives, and the collection of additional data to  
12 refine site characterization where necessary to the detailed  
13 evaluation of alternatives. The detailed evaluation of  
14 alternatives will start, to the extent practical, while the  
15 Phase II field investigations are being conducted, but the  
16 evaluation can only be completed following completion of the  
17 field investigations. Phase II activities will be documented  
18 in the Phase II RI/FS Report, which will present the detailed  
19 evaluation of alternatives. The major Phase II tasks are:

20 1.0 Submit Phase II RI/FS Work Plan. The Phase II  
21 RI/FS Work Plan will describe the activities to be undertaken  
22 to complete the detailed evaluation of alternatives. The  
23 work plan will describe field investigations to be  
24 undertaken. If field investigations are proposed, the work  
25 plan will contain a sampling plan and any modifications to  
26 the health and safety and QAPP plans, as appropriate.

27 2.0 Conduct Phase II Activities.

28 2.1 Conduct Additional Field Investigations.



1 as Needed. Aerojet will perform treatability tests, pilot  
2 tests, and collect additional field data specified in the  
3 work plan which are necessary to support the detailed  
4 evaluation of alternatives.

5 2.2 Conduct Detailed Analysis of  
6 Alternatives. Aerojet will perform a detailed evaluation of  
7 those alternatives resulting from the initial screening  
8 process. Aerojet will evaluate the alternatives in  
9 accordance with the NCP.

10 Aerojet will compare the risks posed by the remedial  
11 alternatives to Plaintiffs' calculated baseline risk of the  
12 no-action alternative, and will do so consistent with the  
13 methodology used by Plaintiffs in their Risk Characterization  
14 Report. Aerojet reserves the right to also evaluate the  
15 alternatives in a manner consistent with what Aerojet  
16 believes to be the appropriate risk characterization and  
17 methodology.

18 During the detailed evaluation of alternatives, Aerojet  
19 will complete its list of standards, requirements, criteria  
20 or limitations that are applicable or relevant and  
21 appropriate to the location of the activities, the hazardous  
22 substances present and the various activities evaluated.

23 3.0 Submit Phase II RI/FS Report. A Phase II  
24 RI/FS Report will be submitted. The report will detail the  
25 results of the Phase II activities. A detailed analysis of  
26 alternatives will be presented respecting protection of human  
27 health and the environment, attainment of ARARs,  
28 cost-effectiveness, the length of time for achieving cleanup

1 and utilization of permanent solutions and alternative  
2 treatment technologies or resource recovery technologies.  
3 The report will also present the list of ARARs developed  
4 during the detailed evaluation of alternatives.

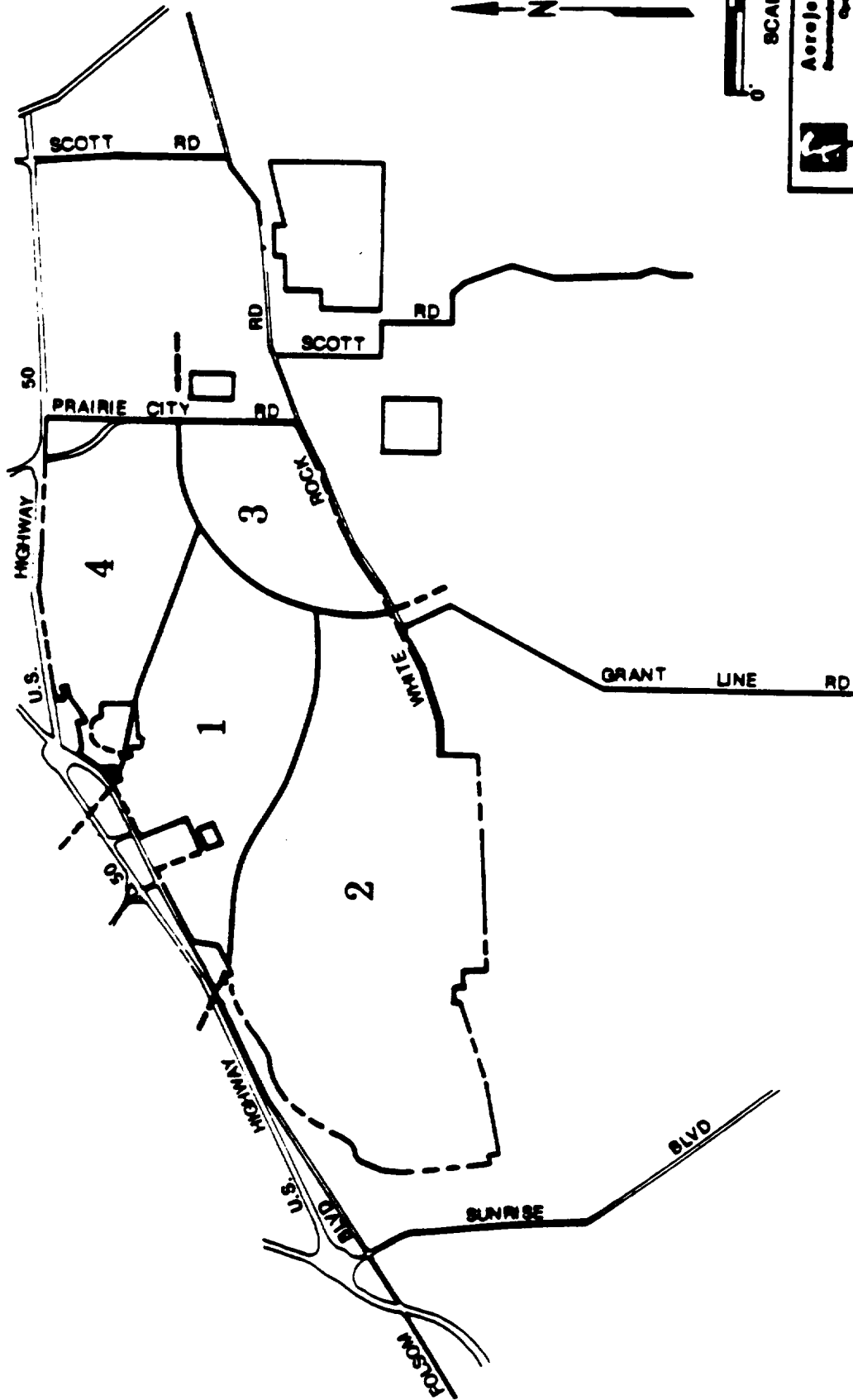
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VI. PROGRAM DELIVERABLES AND SCHEDULE

<u>Deliverable</u>	<u>Schedule and Approval Status*</u>
1. Validation Plan for Historic Data	Submitted in this Decree and approved.
2. Part 1 GET Effectiveness Report and Part 2 GET Effectiveness Work Plan	Submitted for review and approval within 3 months after effective date of this Decree.
3. Part 2 GET Effectiveness Report	Submitted for review and approval in accordance with the schedule in the Part 2 GET Effectiveness Work Plan.
4. Scoping Report	Submitted for review and approval within 6 months after effective date of this Decree.
5. Phase I RI/FS Work Plan	Submitted for review and approval within 3 months following approval of Deliverable 4.
6. Zone 1 Stage 1 Report and Stage 2 Sampling Plan	Submitted for review and approval in accordance with the schedule in the approved Phase I RI/FS Work Plan.
7. Zone 1 Alternatives Development Report	Submitted for review and comment within 1 month following submission of the Zone 1 Stage 1 Report.
8. Zone 2 Stage 1 Report and Stage 2 Sampling Plan	Submitted for review and approval in accordance with the schedule in the Phase I RI/FS Work Plan and following submission of the Zone 1 Stage 1 Report.
9. Zone 2 Alternatives Development Report	Submitted for review and comment within 1 month following submission of the Zone 2 Stage 1 Report.
10. Zone 3 Stage 1 Report and Stage 2 Sampling Plan	Submitted for review and approval in accordance with the schedule in the Phase I RI/FS Work Plan and following submission of the Zone 2 Stage 1 Report.

- 1 11. Zone 3 Alternatives Development Report Submitted for review and comment  
2 within 1 month following  
3 submission of the Zone 3  
4 Stage 1 Report.
- 5 12. Zone 4 Stage 1 Report Submitted for review and  
6 and Stage 2 Sampling approval in accordance with the  
7 Plan schedule in the Phase I RI/FS  
8 Work Plan and following  
9 submission of the Zone 3  
10 Stage 1 Report.
- 11 13. Zone 4 Alternatives Submitted for review and comment  
12 Development Report within 1 month following  
13 submission of the Zone 4  
14 Stage 1 Report.
- 15 14. Zone 1 Stage 2 RI Report Submitted for review and  
16 comment in accordance with the  
17 schedule in the Zone 1 Stage 2  
18 Sampling Plan.
- 19 15. Zone 2 Stage 2 RI Report Submitted for review and  
20 comment in accordance with the  
21 schedule in the Zone 2 Stage 2  
22 Sampling Plan.
- 23 16. Zone 3 Stage 2 RI Report Submitted for review and  
24 comment in accordance with the  
25 schedule in the Zone 3 Stage 2  
26 Sampling Plan.
- 27 17. Zone 4 Stage 2 RI Report Submitted for review and  
28 comment in accordance with the  
schedule in the Zone 4 Stage 2  
Sampling Plan.
18. Exposure Pathway Report Submitted for review and  
approval in accordance with the  
schedule in the Phase I RI/FS  
Work Plan.
19. Exposure Point Submitted for review and  
Concentration Report approval 4 months following  
submission of the last Stage 2  
Zone Report, but in no event  
earlier than 6 months from  
submission of the second to  
last Stage 2 Zone Report.
20. Plaintiffs' Final Risk Submitted for Aerojet use in  
Characterization Report accordance with the schedule in  
the Phase I RI/FS Work Plan.

- 1 21. Phase I RI/FS Report Submitted for review and  
2 approval within 6 months  
3 following submittal of  
4 Plaintiffs' Final Risk  
5 Characterization Report.
- 6 22. Phase II RI/FS Work Plan Submitted for review and  
7 approval within 3 months  
8 following approval of the  
9 Phase I RI/FS Report.
- 10 23. Phase II RI/FS Report Submitted for review and  
11 approval in accordance with the  
12 schedule in the Phase II RI/FS  
13 Work Plan.
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- \* Reports are submitted for review and approval or for  
review and comment. Health and Safety Plans are for  
review and comment.



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EXHIBIT II  
FIGURE 1

JANUARY 1988

EXHIBIT II-1VALIDATION PLAN FOR HISTORIC DATAINTRODUCTION

This plan outlines the program for validating environmental data collected at the Aerojet Site since 1979, when Aerojet commenced actions to investigate the nature and extent of chemicals in soil and ground water.

Data validation, as used in this plan, is the process by which such historic environmental data will be evaluated and categorized according to quality. The quality of the data will determine what use can be made of it in the conduct of the RI/FS.

The historical data form the basis of a very large and complex data base. Table 1 tabulates the numbers of hydrologic, water quality, and soil sample records stored in the computerized site-wide data base, which currently contains more than 90 percent of the available data. Each water quality and soil sample record represents many different chemical analyses.

The data evaluation program for historic data will follow the flexible, staged approach described in EPA's guidance document, "Data Quality Objectives for the RI/FS Process", OSWER Document No. 9335.0-7A, June 6, 1986.

The data validation program will establish the quality of the historical data base by: (1) evaluating the sampling methodology, laboratory data, and data management procedures, (2) determining which validated data are applicable for site

1 screening, site characterization/engineering, or confirmation  
2 purposes, and (3) identifying data blocks and corresponding  
3 quality levels. The fourth step of the program,  
4 documentation of the data evaluation process, will be  
5 provided in the Phase I GET Effectiveness Report and the  
6 Scoping Report, as appropriate. Such documentation will  
7 include a description of the evaluation process, the criteria  
8 used, and presentation of the results of the sampling,  
9 analytical and data management evaluation tasks.

10 DATA EVALUATION TASKS

11 The data evaluation process will be completed in four  
12 major tasks.

13 1. Evaluate historical sampling, analytical, and data  
14 management practices. Aerojet will review changes, since  
15 1979, in sampling procedures, analytical methods, and data  
16 management methods at the Aerojet site. Aerojet will assess  
17 data quality by evaluating the procedures and practices used  
18 for data collection. Recently collected data may be of  
19 higher quality and therefore more reflective of current site  
20 conditions.

21 (a) Field Sampling Evaluation.

22 (1) Water Quality Data. Field sampling for  
23 ground water quality will be evaluated as follows:

- 24 - Review history of well construction  
25 practices, sampling methods, sampling procedures,  
26 chain-of-custody procedures and procedures for field  
27 preservation and transport of collected samples.

- 28 - Identify procedures for collection



and analysis of field blanks, replicates, split samples,  
and resampling of wells.

(2) Hydrologic Data. The field procedures  
for the collection of hydrologic data will be evaluated as  
follows:

- Identify the data collection  
methods, the measurement devices, and the relative times  
and frequencies of measurements.

- Review the standard practices used  
to calibrate measurement devices and to adjust relative  
measurements of specific measuring devices.

(3) Soils Data. The field procedures for  
collecting soil data will be evaluated as follows:

- Identify procedures for collection  
and preservation of soil samples.

- Identify quality assurance and  
quality control procedures appropriate for the analyses  
of interest.

- Document the changes in procedures  
which have occurred over time.

- Develop rationales and procedures  
for rejecting data based on QA/QC sample results.

- Identify potential variability and  
sources of error in soil sampling.

(b) Laboratory Data Evaluation. Aerojet will  
identify the analytical methods and the laboratories used  
since 1979 to analyze samples. Because samples have been  
analyzed by multiple laboratories, interlaboratory studies,

1 when available, will be used to assess consistency in  
2 analytical results between different laboratories.

3 The level of analytical uncertainty for data will be  
4 based upon evaluation of the analytical methods used and on  
5 laboratory QA/QC procedures. Initially, holding times of  
6 samples will be reviewed. Two situations are anticipated:

- 7       • Holding times exceeded
- 8       • Holding times not exceeded

9 If analyses were conducted on samples for which holding  
10 times were exceeded, and chemicals were detected, these  
11 results will be considered informational only and may be used  
12 for planning future sampling regimes.

13 More rigorous screening, when necessary to ensure that  
14 data are of high quality, may involve an audit of standard  
15 laboratory procedures and may include:

- 16       • Review of analytical method used
- 17       • Check on the availability of QA/QC data, such as  
18       equipment calibration practices, spike/surrogate/  
19       matrix data, duplicate results data, method blank  
20       results and EPA Performance Evaluation data.

21 (c) Data Management Evaluation. Aerojet has been  
22 developing a comprehensive computerized data management  
23 system since 1980. The system stores the hydrologic data,  
24 water quality analytical data, and soils analytical data.  
25 Aerojet will review and document the data management  
26 procedures used throughout the historical data collection  
27 period. Data that are not part of the computerized  
28 management system will be identified. The data management

1 system will be audited by following selected data reports  
2 through the entire process to verify their accuracy.

3 2. Create Data Blocks. Rather than conducting a  
4 lengthy data-point-by-data-point evaluation of the historical  
5 data base, Aerojet will evaluate blocks of data. These data  
6 blocks will be developed using common criteria such as  
7 sampling date, media sampled, well design, field sampling  
8 techniques, and analytical methods.

9 3. Evaluate Data Blocks and Establish Data Quality.  
10 The quality of blocks of historic data will be evaluated  
11 according to criteria which will be developed based on the  
12 objectives of the investigation, potential uses of the data,  
13 field sampling procedures, and analytical methods used during  
14 the investigation. The blocks of historic data will be  
15 assigned to one of the three anticipated categories as  
16 follows:

17 Category 1. (Low or poor quality data)

18 Site Screening: Includes data used to:

- 19 - Identify the presence or absence of chemicals of  
20 concern at a relatively gross level of detection,  
21 - Identify samples requiring a more rigorous  
22 laboratory analysis,  
23 - Identify media (water, soil) at specific locations  
24 which may be investigated at a higher data quality  
25 level to accurately verify chemical concentrations.

26 All data regardless of quality will be examined for site  
27 screening.

28 Category 2. (Intermediate or good quality data)

1        Site Characterization and Engineering:

2        Includes data used to:

- 3        - Determine the nature and extent of chemicals at the  
4                site,  
5        - Identify and evaluate remedial technologies, and  
6        - Design remedial actions and monitor their  
7                effectiveness.

8        Category 3. (High or best quality data)

9        Confirmational

10       Includes data used to:

- 11       - Evaluate the risk or threat posed by the site to  
12                public health and the environment. To make these  
13                evaluations, a high level of data certainty is  
14                necessary.

15       4.    Document Results. The criteria used to conduct the  
16       data validation and the results of the data validation will  
17       be documented in the Part I GET Effectiveness Report and the  
18       Scoping Report, as appropriate.

TABLE 1  
COMPUTER DATA BASE RECORDS  
OCTOBER 1987

	<u>DATA BASE</u>	<u>NO. RECORDS</u>
1		
2		
3		
4		
5	HYDROLOGIC	
6		124,924
7	WATER QUALITY	
8	Acid/Base/Neutrals	
9	Minerals	334
10	Metals	2,287
11	Miscellaneous	291
12	Pesticides	2,308
13	VOC	124
14		16,720
15	SOILS	
16	VOC Tubes	
17	VOC Vials	17,344
18	Metals	6,170
19	Miscellaneous	1,525
20		4,355
21		
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28		

## EXHIBIT III-1

Source-Areas

(The accuracy of these descriptions will be addressed in the Scoping Report pursuant to Paragraph 5 of the Decree.)

- 1D Low area 50 feet southwest of Building 01039
- 2D Low area 80 feet north of Building 01085
- 3D Building 20002 and northern half of Building 20004
- 4D Ditch south of Building 20005
- 5D Ditch southwest of Building 20009
- 6D Low area west of Building 20009
- 7D Ditch approximately 400 feet north of Building 20009
- 8D Sewage treatment plant settling pond northwest of Building 20012
- 9D Ditch along Alabama Avenue, approximately 300 feet north of Building 20012
- 10D Ditch parallel to Folsom Boulevard, just south of Building 20014
- 11D Drainage from Building 20022
- 12D Ditch southeast of Nimbus-Alabama intersection approximately 1600 feet west of Building 20025
- 13D Drainage from Buildings 46002 and 46028
- 14D Discharge from test stands at Building 46004
- 15D Low area approximately 120 feet southeast of Building 46006
- 16D Discharge from test stand at Building 46007
- 17D Drainage from Building 46013
- 18D Discharge from test stand at Building 46014
- 19D Discharge from test stand at Building 46017
- 20D Drainage from Building 46021
- 21D Drainage from Building 46022

1	22D	Discharge from test stand at Building 46029
2	23D	Discharge from test stand at Building 46030
3	24D	Discharge from test stand at Building 46031
4	25D	Discharge from test stand at Building 46033
5	26D	Discharge from test stand at Building 46034
6	27D	Discharge from test stands approximately 100 feet southwest of Building 46035
7	28D	Drainage from Building 46035 to northwest
8	29D	1000-gallon septic tank with one pothole at Building 46035
9		
10	30D	Drainage from Building 46037
11	31D	Discharge from test stands at Building 46101
12	32D	Ditch approximately 70 feet southwest of Building 49009
13	33D	Area approximately 25 feet southwest of Building 49010
14		
15	34D	Ditch northeast of Building 49011
16	35D	Building 49014
17	36D	Waste tank at Building 49015
18	37D	Waste tank at west side of Building 49016
19	38D	Ditch southwest of Building 49018
20	39D	Fenced area approximately 120 feet east of Building 49020
21	40D	New septage lagoon
22	41D-	Old septage lagoon
23	42D	Pre-59 dump
24	43D	Dump between old and new septage lagoons
25	44D	Burn area northwest of pre-59 dump
26	45D	Tar disposal site
27		
28		

1	46D	25-30 acre dumpsite south of Aerojet Road
2	47D	Dump site south of septage lagoons
3	48D	Waste, drum, and septic waste disposal area near Building 01107
4	49D	Fuel oil tank at Building 01086
5	50D	Fuel oil tank west of Building 20001
6	51D	Fuel oil tank north of Building 20002
7	52D	Waste oil tank west of Building 20009
8	1E	Waste tank on west side of Building 00002
9	2E	Waste tank northwest of Building 00006
10	3E	Waste tank south of Building 00007
11	4E	Ponds 160 feet northwest of Building 01002
12	5E	Drainage from Building 01002
13	6E	Low area 80 feet south of Building 01004
14	7E	Ponds 80 feet east of Building 01006
15	8E	Ditch 200 feet northeast of Building 01006
16	9E	Pond 40 feet northwest of Building 01008
17	10E	Ditch 110 feet southeast of Building 01009
18	11E	Ditch 70 feet north of Building 01010
19	12E	Low area 110 feet southwest of Building 01012
20	13E	Ponds 100 feet northwest of Building 01015
21	14E	Drainage from Building 01015
22	15E	Low area 60 feet south of Building 01017
23	16E	Ditch 120 feet northeast of Building 01022
24	17E	Ditch 60 feet south of Building 01024
25	18E	Ditch 30 feet southwest of Building 01025
26	19E	Ditch 100 feet north of Building 01026
27	20E	Drainage from Building 01035
28		



1	21E	Ponds 60 feet west of Building 01036
2	22E	Drainage from Building 01049
3	23E	Ditch 80 feet south of Building 01083
4	24E	Pond 50 feet east of Building 01095
5	25E	Pond 70 feet north of Building 01100
6	26E	Pond 50 feet north of Building 01102
7	27E	Pond 60 feet northeast of Building 01103
8	28E	Ponds approximately 330 feet west of Building 02024
9	29E	Pond 40 feet north of Building 02024
10	30E	Ponds 130 feet south of Building 05001
11	31E	Plant 1 ponds northwest and southwest of Building 05002
12	32E	Ponds 30 feet north of Building 05005
13	33E	Waste tank at Building 05005
14	34E	Pond 80 feet northwest of Building 05006
15	35E	Pond 120 feet west of Building 05017
16	36E	Pond 110 feet west of Building 05018
17	37E	Ponds 120 feet northeast of Building 05022
18	38E	Low area 80 feet north of Building 05024
19	39E	Pond 50 feet northeast of Building 05025
20	40E	Waste tank at Building 05025
21	41E	Pond 80 feet northwest of Building 05029
22	42E	Pond 90 feet north of Building 05030
23	43E	Pond 100 feet west of Building 05033
24	44E	Pond 100 feet west of Building 05034
25	45E	Waste tank northeast of Building 05034
26	46E	Waste tank southeast of Building 05034
27	47E	Pond 20 feet west of Building 05036
28		

1	48E	Drainage from Building 05046
2	49E	Drainage from Building 05060
3	50E	Pond 40 feet north of Building 05081
4	51E	Sump approximately 50 feet west of Building 05087
5	52E	375-gallon septic tank at Building 05087
6	53E	Drainage from Building 05094
7	54E	Waste tank at Building 06001
8	55E	Ponds 120 feet west of Building 06011
9	56E	Drainage from Building 06012
10	57E	Low area approximately 70 feet southwest of Building 06019
11	58E	Ponds 180 feet south of Building 06019
12	59E	Area 400 feet northeast of Building 06021
13	60E	Low area 140 feet northwest of Building 01027
14	61E	Fuel Oil Tank at Building 01037
15	62E	Pond approximately 100 feet west of 05051
16	1F	Pond 40 feet southwest of Building 01103
17	2F	Pond 60 feet west of Building 01103
18	3F	Pond 240 feet northeast of Building 03001
19	4F	Pond 150 feet southwest of Building 03002
20	5F	Drainage from Building 03003
21	6F	Ponds 270 feet west of Building 03004
22	7F	Ponds 300 feet southwest of Building 03006
23	8F	Drainage from Building 03006
24	9F	Pond 120 feet southeast of Building 03009
25	10F	Pond 150 feet southwest of Building 03009
26	11F	Drainage from Building 03010
27	12F	Drainage from Building 03012
28		

1	13F	Ponds 60 feet southeast of Building 03013
2	14F	Area approximately 20 feet northwest of Building 03013
3	15F	Area approximately 50 feet west of Building 03014
4	16F	Area 110 feet west of Building 03015
5	17F	Pond 100 feet south of Building 03015
6	18F	Pond 50 feet west of Building 03016
7	19F	Ponds 80 feet east of Building 03017
8	20F	Area 100 feet northwest of Building 03019
9	21F	Ponds 250 feet north of Building 03019
10	22F	Pond 140 feet west of Building 03023
11	23F	Low area 50 feet southwest of Building 03024
12	24F	Pond 200 feet south of Building 03025
13	25F	Cordova Chemical Company dredge pit
14	26F	Pond north of New York Road approximately 700 feet north of Building 03019
15		
16	27F	Ponds 80 feet southeast of Building 04002
17	28F	Drainage from Building 04002
18	29F	Pond 150 feet northwest of Building 04004
19	30F	Ponds 50 feet west of Building 04006
20	31F	Ponds 100 feet south of Building 04006
21	32F	Low area 50 feet southwest of Building 04006
22	33F	Ponds 180 feet northeast of Building 04007
23	34F	Ponds 50 feet northeast of Building 04008
24	35F	6000-gallon septic tank with two potholes at Building 04008
25	36F	Ponds 140 feet east of Building 04009
26	37F	Drainage from Building 04010
27	38F	Area approximately 50 feet west of Building 04012
28		

1	39F	Drainage from Building 04013
2	40F	Ponds 90 feet south of Building 04015
3	41F	Ponds 120 feet east of Building 04016
4	42F	Drainage from Building 04020
5	43F	Drainage from Buildings 04021 and 04039
6	44F	Drainage from Building 04026
7	45F	Drainage from Building 04030
8	46F	Drainage from Building 04031
9	47F	Drainage from Building 04032
10	48F	Drainage from Building 04033
11	49F	Drainage from Building 04034
12	50F	Ponds 100 feet west of Building 04035
13	51F	Low area approximately 140 feet northwest of Building 04035
14	52F	Pond 40 feet east of Building 04041
15	53F	Drainage from Building 04043
16	54F	Area 40 feet south of Building 04045
17	55F	Ponds 40 feet west of Building 04045
18	56F	Drainage from Building 04061
19	57F	Ponds 50 feet west of Building 04080
20	58F	1000-gallon septic tank with one pothole at Building 04089
22	59F	Cordova Chemical Company Plant 2 injection headworks
23	60F	3500-gallon septic tank with four potholes at Building 15001
24	61F	Sump at 15001N storage yard
25	62F	Paraldehyde tank area approximately 320 feet west of Building 15010
26		
27	63F	1000-gallon septic tank with three potholes at Building 04001
28		

- 1 64F 2000-gallon septic tank with two potholes at  
Building 04046
- 2 1B Waste basin approximately 150 feet west of Building
- 3 33002
- 4 2B Seepage pit located on north side of Building 33006
- 5 3B Sump east of Building 33008
- 6 4B Sump approximately 280 feet southwest of Building
- 7 34005
- 8 5B Pond approximately 420 feet west of Building 34005
- 9 6B Sump approximately 50 feet west of Building 34006
- 10 7B Waste tank at Building 34009
- 11 8B Ravine 275 feet west of Building 34019
- 12 9B Pond approximately 420 feet west of Building 34019
- 13 10B Pond approximately 180 feet northwest of Building
- 14 35006
- 15 11B Ditch 30 feet east of Building 35007
- 16 12B F-Area lake approximately 300 feet southwest of
- 17 Building 35008
- 18 13B F-Zone sump at Building 35091
- 19 14B G-Zone sump approximately 250 feet west of Building
- 20 36001
- 21 15B Pond approximately 350 feet west of
- 22 Building 36005
- 23 16B Ravine approximately 800 feet northwest of
- 24 Building 36005
- 25 17B 2000-gallon septic tank west of Building 37009
- 26 18B Waste tank at Building 37009
- 27 19B Disposal area approximately 30 feet northwest of
- 28 Building 36014
- 20B Spacey Lake, approximately 600 feet northwest of
- Building 37014
- 21B Ditch 30 feet north of Building 37028
- 22B Pond approximately 200 feet north of Building 37100

- 1 23B 3000-gallon septic tank north of Building 38001
- 2 24B Disposal area approximately 100 feet southeast of Building 38001
- 3 25B J3 sump east of Building 38005
- 4 26B Area approximately 70 feet east of Building 38007
- 5 27B Limestone dump site approximately 150 feet southwest of Building 38008
- 6
- 7 28B Open ditch system conveying waste from J-1, J-2, and J-3 sumps to F-Area lake
- 8
- 9 29B Burn area 200 feet southeast of Building 39007
- 10 30B Burn area 1200 feet southeast of Building 39007
- 11 31B Burn area 1300 feet southeast of Building 39007
- 12 32B Burn area 300 feet northeast of Building 39007
- 13 33B Burn area 600 feet northeast of Building 39007
- 14 34B Chemical storage pad 1300 feet southeast of Building 39007
- 15 35B Chemical storage pad 700 feet southwest of Building 39007
- 16
- 17 36B Sump 1200 feet northeast of Gate 6
- 18 37B Sump 1600 feet northeast of Gate 6
- 19 38B Northern portion of east burn area 2000 feet east of Gate 6
- 20 39B Central portion of east burn area 2000 feet southeast of Gate 6
- 21 40B Southern portion of east burn area 2100 feet southeast of Gate 6
- 22
- 23 41B Burn area 3600 feet southeast of intersection of White Rock Road and Scott Road
- 24 42B Burn area 4000 feet southeast of intersection of White Rock Road and Scott Road
- 25
- 26 43B Burn area 3800 feet southeast of intersection of White Rock Road and Scott Road
- 27 44B Burn area 3700 feet southeast of intersection of White Rock Road and Scott Road
- 28

- 1 45B Burn area 4500 feet east-southeast of intersection  
of White Rock Road and Scott Road
- 2 46B Burn area 4800 feet east-southeast of intersection  
3 of White Rock Road and Scott Road
- 4 47B Burn area 5200 feet east-southeast of intersection  
of White Rock Road and Scott Road
- 5 48B Burn area 5500 feet southeast of intersection of  
6 White Rock Road and Scott Road
- 7 49B Burn area 6000 feet southeast of intersection of  
8 White Rock Road and Scott Road
- 9 50B Burn area 5000 feet southeast of intersection of  
White Rock Road and Scott Road
- 10 51B Burn area 5100 feet south-southeast of intersection  
11 of White Rock Road and Scott Road
- 12 52B Burn area 5000 feet south-southeast of intersection  
of White Rock Road and Scott Road
- 13 53B Burn area 4900 feet south-southeast of intersection  
14 of White Rock Road and Scott Road
- 15 54B Burn area 6600 feet southeast of intersection of  
White Rock Road and Scott Road
- 16 55B Burn area 7500 feet east of intersection of White  
17 Rock Road and Scott Road
- 18 56B Burn area 6300 feet southeast of intersection of  
White Rock Road and Scott Road
- 19 57B Burn area 4100 feet southeast of intersection of  
20 White Rock Road and Scott Road
- 21 58B Pond 5700 feet southeast of intersection of White  
Rock Road and Scott Road
- 22 59B Burn area 4600 feet southeast of intersection of  
23 White Rock Road and Scott Road
- 24 60B Storage area 4100 feet southeast of intersection of  
White Rock Road and Scott Road
- 25 61B Storage area 4400 feet south-southeast of  
26 intersection of White Rock Road and Scott Road
- 27 62B Storage area 5300 feet southeast of intersection of  
White Rock Road and Scott Road
- 28

- 1 63B Storage area 6800 feet southeast of intersection of  
White Rock Road and Scott Road
- 2 64B Burn area 5800 feet southeast of intersection of  
3 White Rock Road and Scott Road
- 4 65B Burn area 5000 feet south-southeast of intersection  
5 of White Rock Road and Scott Road
- 6 66B 2000-gallon septic tank with two potholes at  
Building 34009
- 7 67B Fuel oil tank at Building 36015.
- 8 1G Drainage from Building 04023
- 9 2G Drainage from Building 04024
- 10 3G Drainage from Building 04025
- 11 4G Burn area 1100 feet south of Building 04034
- 12 5G Drainage from Buildings 04040 and 04022
- 13 6G 500-gallon septic tank with one pothole at Building  
14 04040
- 15 7G Drainage from Building 04050
- 16 8G Ditch or low area 130 feet west of Building 04051
- 17 9G Drainage from Buildings 04052, 04053, and 04036
- 18 10G Drainage from Building 04065
- 19 11G Burn area east of Building 04124
- 20 12G Fuel oil tank at Building 04090
- 21 1C Drainage from Building 46025
- 22 2C Drainage from Building 46044
- 23 1A Sumps 120 feet east of Building 30002
- 24 2A Sump 210 feet east of Building 30002
- 25 3A Low area 290 feet east of Building 30002
- 26 4A Area approximately 200 feet northeast of Building  
30008
- 27 5A Area approximately 60 feet northwest of Building  
28 30093



- 1 6A Hullborne Lake approximately 100 feet southwest of Building 31001
- 2 7A Pond approximately 370 feet west of Building 32003
- 3 8A Sump approximately 150 feet southwest of Building 32003
- 4
- 5 9A Ditch approximately 90 feet northeast of Building 32009
- 6
- 7 10A Titan I cleaning facility approximately 30 feet southeast of Building 32009
- 8
- 9 11A Foilborne Lake south of Building 32107
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## EXHIBIT III-2

Potential Source Areas

(Areas identified by Plaintiffs on the basis of historical data, the accuracy of which has not been authenticated)

- D(a) 6000-gallon septic tank with three leachlines at Building 01048
- D(b) Trenches extending from southwest corner of Building 20009
- D(c) Treatment plant sludge from sump/holding tank at Building 20012
- D(d) Sump 100 feet west of Building 20015 and 100 feet south of Sacramento Municipal Utility District substation fence line
- D(e) Backwash ponds Nos. 1, 2, and 3 (Area 21)
- D(f) Low area 70 feet northeast of Building 46003
- D(g) Surface drain near test stand at Building 46016
- D(h) Concrete sump at Building 46035
- D(i) Specific area where Cs<sub>137</sub>, Th<sub>232</sub>, and lithium were discharged from test stands at Building 46100
- E(a) Possible drum burial near Vitabark (Area 00)
- E(b) Discharge point from industrial waste line originating at south side of Building 00007
- E(c) Drainage from Building 01042
- E(d) Drainage from Building 02020
- E(e) Pit inside warehouse Building 02020
- E(f) Sump at Building 05002
- E(g) Drainage from Building 05013
- E(h) Pond south of Building 05017
- E(i) Pond #1 west of Building 05029
- E(j) Pond #2 west of Building 05029
- E(k) Pond northwest of Building 05034

- 1 E(l) Drainage from Building 00009
- 2 E(m) Pond north of Building 02025
- 3 E(n) Discharge point from 3" industrial waste line  
4 originating at Building 02025
- 5 F(a) Sump connected to septic tank and leachlines  
approximately 125 feet north of Building 04045
- 6 F(b) Drainage from Building 04063
- 7 F(c) Sump 250 feet southwest of Building 15007
- 8 B(a) Dump pits 20 feet southeast of test stand E-6  
(Area 34)
- 9 B(b) Emergency Dump just south of test stand E-5  
10 (Area 34)
- 11 B(c) Emergency fuel dump north of E6 (Area 34)
- 12 B(d) Waste tank on west side of Building 35007
- 13 B(e) Sites listed from "Chemical Waste Disposal Plot  
14 Plan" Aetron Drawing FA-5748 with release date  
7/6/60 (Area 35)
- 15 B(f) Drainage from Building 36001
- 16 B(g) Aerozine 50 tank at Buildings 36003-36008
- 17 B(h) Methanol tank at Buildings 36003-36008
- 18 B(i) Waste pit at Building 37010
- 19 B(j) Sump at Building 37020
- 20 B(k) Sump at Building 37100
- 21 B(l) Waste line from HEP test stands to Sumps J-1 and  
22 J-2, 200 feet east of Building 38001
- 23 G(a) Pond at Building 04027
- 24 A(a) Ditch approximately 100 feet north of Building 30003
- 25 A(b) Pond approximately 200 feet north of Building 30003
- 26 A(c) Sump 30 feet west of Building 30003
- 27 A(d) Dump tank pit approximately 150 feet southwest of  
28 Building 32003

- 1 A(e) Waste trench approximately 200 feet northeast of  
former test stand C-9 (Area 32)
- 2 A(f) Waste basin southeast of C-9 (Area 32)
- 3 A(g) Dump tank pit north of waste basin (Area 32)
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EXHIBIT IVInterim Protection of Drinking Water Supply Wells

(A) This Exhibit IV applies to the water supply wells listed in Exhibit IV-1, "water supply wells."

(B) Aerojet shall sample, consistent with Exhibit IV-2 each water supply well quarterly, beginning not later than thirty (30) days after the effective date of this Decree, for the chemicals listed in Exhibit IV-3. Aerojet shall report sampling results within sixty (60) days after analysis of all the samples collected in a given quarter, unless otherwise specified in this Exhibit.

Aerojet shall have initial responsibility to seek access to each water supply well for monitoring purposes. If access to any listed water supply well cannot reasonably be obtained, Aerojet shall be relieved of the responsibility to monitor that well until access is granted. In the event that access cannot reasonably be obtained, Aerojet shall immediately notify Plaintiffs, and Plaintiffs shall intercede to the end of securing access. If the parties are unsuccessful in obtaining access to a well, they shall endeavor to modify Exhibit IV-1 to substitute for that well another well or, if Plaintiffs and Aerojet cannot agree on an alternative well, the matter will be resolved pursuant to Paragraph 20 (Dispute Resolution). If access is initially denied but later granted before modification of Exhibit IV-1, the 30-day period described above shall begin on the day the access is obtained.

If modifications to the well headworks are required to

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1 collect samples and such modifications take more than thirty  
2 (30) days to complete, Aerojet shall so notify Plaintiffs and  
3 the 30-day period described above shall be extended by a  
4 period agreed upon by Plaintiffs and Aerojet. Any dispute  
5 about sufficiency of time will be resolved pursuant to  
6 Paragraph 20 (Dispute Resolution).

7 (C) If any chemical listed in Exhibit IV-3 is found as  
8 a result of the monitoring required by Paragraph (B) of this  
9 Exhibit in a concentration equal to or greater than the  
10 detection limit specified for that chemical in Exhibit IV-3,  
11 Aerojet shall notify Plaintiffs, within five business days  
12 following initial detection of the chemical. If Plaintiffs  
13 collect samples, they will notify Aerojet and permit Aerojet  
14 to be present at the sampling and to take split or replicate  
15 samples. If any chemical listed in Exhibit IV-3 is found as  
16 a result of monitoring by Plaintiffs in a concentration equal  
17 to or greater than the detection limit specified for that  
18 chemical in Exhibit IV-3, Plaintiffs shall notify Aerojet in  
19 writing.

20 (1) Upon transmittal of notification that a  
21 chemical has been found in a concentration equal to or  
22 greater than the detection limit, Aerojet shall have not more  
23 than thirty (30) days to verify the detection of the  
24 chemical(s) and confirm the calculated mean concentration as  
25 being above or below the respective trigger level listed in  
26 Exhibit IV-3 by the following procedures:

27 (a) Verification samples shall be collected  
28 and analyzed at least twice per week for at least three weeks

1 for the listed chemical initially detected. Aerojet's  
2 conclusion and supporting rationale regarding the presence of  
3 the chemical(s), the analytical results for each sample, and  
4 the calculated mean for each detected chemical as calculated  
5 pursuant to Subparagraph (C)(1)(c and e) of this Exhibit  
6 shall be submitted to Plaintiffs in a Verification Report  
7 within the 30-day period. Aerojet will notify the affected  
8 water supply well owner or operator of the report and make  
9 available a copy of the Verification Report to such person.

10 (b) The Verification Report required by  
11 Subparagraph (C)(1) of this Exhibit shall conclude that a  
12 chemical is present only if there is a positive  
13 identification of the chemical in 50 percent or more of the  
14 samples analyzed. The samples required by Subparagraph  
15 (C)(1) of this Exhibit shall be analyzed by Gas  
16 Chromatography/Mass Spectrometry (GC/MS) for the volatile  
17 organic compounds listed in Exhibit IV-3, unless Aerojet  
18 concludes that there is a positive identification of the  
19 chemical. Aerojet may also discontinue analysis by GC/MS if  
20 the chemical is not detected in more than 50 percent of the  
21 total samples to be analyzed pursuant to Subparagraph  
22 (C)(1). The detection limit for such GC/MS analyses shall be  
23 the detection limit in Exhibit IV-3.

24 (c) Using the data from monitoring required  
25 by this Subparagraph, Aerojet shall calculate a mean of the  
26 concentrations for each listed chemical detected. When  
27 calculating the mean, if a chemical is nondetected (i.e., the  
28 concentration is less than the detection limit) in a sample

1 and half or more of the samples from the same source contain  
2 detectable concentrations of that chemical, then a value of  
3 one-half the detection limit shall be used to represent the  
4 concentration in that sample. If fewer than half of the  
5 samples from the same source contain detectable  
6 concentrations of the chemical, it shall be deemed not  
7 present for the purpose of verification.

8 (d) If the calculated mean of the  
9 concentration of the chemical is equal to or less than the  
10 respective trigger level of that chemical but greater than  
11 the detection limit, as listed in Exhibit IV-3, the  
12 procedures described in Paragraph (D) of this Exhibit shall  
13 apply. If the calculated mean of the concentration of the  
14 chemical exceeds the respective trigger level of that  
15 chemical, as listed in Exhibit IV-3, the monitoring  
16 procedures described in Paragraph (E) of this Exhibit shall  
17 apply.

18 (e) The calculated mean is determined as  
19 follows: First, the Shapiro-Wilke's goodness-of-fit test  
20 will be applied to test the hypothesis that the data are  
21 distributed normally, or at least that the distribution is  
22 sufficiently indistinguishable from a normal distribution  
23 that parametric testing is validated. If the data set passes  
24 the goodness-of-fit test, then a t-test will be applied to  
25 evaluate whether the concentration of the chemical is above  
26 or below the trigger level at the 90% confidence level. If  
27 the data set does not pass the goodness-of-fit test, then the  
28 t-test will be conducted using a modified mean and variance



1 based upon a log-normal distribution. The t-test will not be  
2 conducted on log-transformed data, but actual values with the  
3 revised mean and variance will be used.

4 (2) If Plaintiffs collect and analyze samples for  
5 the purposes of verifying the detection of chemical(s) and  
6 confirming the calculated mean concentration as being above  
7 or below the trigger level(s), then Plaintiffs shall notify  
8 Aerojet when they will conduct such sampling and shall permit  
9 Aerojet to be present at the sampling and to take split or  
10 replicate samples. If Plaintiffs' calculated mean differs  
11 from Aerojet's calculated mean based on each party's  
12 respective sampling, Plaintiffs and Aerojet will endeavor to  
13 agree upon which figure shall be accepted as the calculated  
14 mean, and, if they are unable to agree, the dispute shall be  
15 resolved pursuant to Paragraph 20 (Dispute Resolution). The  
16 calculated mean either agreed to by Aerojet and Plaintiffs or  
17 settled by dispute resolution shall be the calculated mean  
18 for all purposes referred to in this Exhibit. However, the  
19 calculated mean determined by Plaintiffs for a given water  
20 source shall be the calculated mean for all purposes referred  
21 to in this Exhibit if Aerojet elects not to accompany  
22 Plaintiffs during sampling and if Aerojet is not conducting  
23 verification sampling pursuant to Subparagraph (C)(1) of this  
24 Exhibit at that given water source and has not conducted such  
25 verification sampling within the previous sixty (60) days.

26 (3) If Aerojet samples a water supply well and  
27 fails to meet a detection limit specified in Exhibit IV-3, it  
28 shall notify Plaintiffs within five (5) business days.

1 Plaintiffs may, at their option, require Aerojet to resample  
2 that water supply well within a period of not less than two  
3 (2) business days.

4 (D) If the calculated mean concentration of the  
5 chemical is equal to or less than the trigger level but  
6 greater than the detection limit, as listed in Exhibit IV-3,  
7 Aerojet shall collect monthly samples and analyze them for  
8 the detected chemical until it is nondetected for twelve (12)  
9 consecutive months, at which time quarterly sampling shall be  
10 resumed if no other verified listed chemical is detected  
11 during that 12-month period. Analytical results for each  
12 sample shall be submitted to Plaintiffs within forty-five  
13 (45) days of the date the sample was collected. If during  
14 the monthly monitoring, a sample causes the calculated mean  
15 to exceed the trigger level (based upon the last six  
16 validated samples analyzed), then Aerojet shall follow the  
17 procedures in Subparagraph (C)(1). If any other chemical  
18 listed in Exhibit IV-3 is detected during the monthly  
19 monitoring, Aerojet shall notify Plaintiffs within five (5)  
20 business days following initial detection of the chemical and  
21 shall follow the procedures in Subparagraph (C)(1) of this  
22 Exhibit.

23 (E) If the calculated mean concentration of the  
24 chemical pursuant to Subparagraph (C)(1)(c and e) exceeds the  
25 trigger level for that chemical, Aerojet shall, within  
26 fourteen (14) days after submitting the Verification Report  
27 pursuant to Paragraph (C), submit to Plaintiffs a Preliminary  
28 Water Supply Alternatives Report which report shall

1 preliminarily address the issues to be addressed in the Final  
2 Water Supply Alternatives Report, contain a plan for  
3 completion of a Final Water Supply Alternatives Report, and  
4 shall identify Aerojet's recommendations regarding what, if  
5 anything, should be done and what action Aerojet will  
6 undertake respecting the affected water supply to protect the  
7 public health pending completion of the Final Water Supply  
8 Alternatives Report. The Final Water Supply Alternatives  
9 Report shall state:

10 (1) Aerojet's conclusion as to the source of the  
11 chemical and the reasons therefor.

12 (2) If the source of the chemical is a release for  
13 which Aerojet is responsible pursuant to Paragraph 5(A) of  
14 this Decree, and the affected water supply well is a private  
15 well serving fewer than 25 users:

16 (a) Aerojet's recommendations regarding what,  
17 if anything, should be done temporarily or permanently to the  
18 affected water supply to protect the public health;

19 (b) Aerojet's identification of and  
20 commitment to pay the capital costs of those recommended  
21 actions; and

22 (c) Aerojet's recommendations as to which, if  
23 any, additional costs of those actions should be paid by  
24 Aerojet.

25 (3) If the source of the chemical is a release for  
26 which Aerojet is responsible pursuant to Paragraph 5(A) of  
27 this Decree, and the affected water supply well is not a  
28 private well as described in Subparagraph (E)(2) of this

1 Exhibit:

2 (a) Aerojet's recommendations regarding what,  
3 if anything, should be done temporarily or permanently to the  
4 affected water supply to protect the public health;

5 (b) Aerojet's identification of which of the  
6 recommended actions should be undertaken by Aerojet and which  
7 by any water purveying entity or other third party;

8 (c) Aerojet's identification of and  
9 commitment to pay the capital costs of the recommended  
10 actions, subject to negotiations with any involved third  
11 party, and provided that Aerojet shall pay only such costs as  
12 are necessarily incurred to accomplish the recommended  
13 actions and would not have been incurred but for the taking  
14 of those actions, and shall not pay any costs which represent  
15 a net benefit or enrichment to any water purveying entity or  
16 other third party, considering all legal and equitable  
17 factors related to the recommended actions; and

18 (d) Aerojet's recommendations as to which, if  
19 any, additional costs of the recommended actions should be  
20 paid by Aerojet.

21 (4) If the source of the chemical is not a release  
22 for which Aerojet is responsible pursuant to Paragraph 5(A)  
23 of this Decree, then, for informational purposes only,  
24 Aerojet's recommendations regarding what, if anything, should  
25 be done by others to the affected water supply to protect the  
26 public health.

27 (F) The Final Water Supply Alternatives Report to be  
28 submitted by Aerojet under Paragraph (E) of this Exhibit

1 shall also include Aerojet's recommendations as to which, if  
2 any, other water supply well, either identified in  
3 Exhibit IV-1 or susceptible of addition to that Exhibit  
4 pursuant to Paragraph (J) of this Exhibit, should be sampled  
5 by Aerojet. If any chemical listed in Exhibit IV-3 is  
6 detected during such sampling, Aerojet shall conduct  
7 verification monitoring as described in Subparagraph (C) of  
8 this Exhibit and if the calculated mean concentration of the  
9 chemical exceeds its trigger level, Aerojet shall follow the  
10 procedures set forth in Subparagraph (E) of this Exhibit and  
11 submit a Water Supply Alternatives Report as to that water  
12 supply well pursuant to this Exhibit.

13 (G) If Plaintiffs approve Aerojet's Final Water Supply  
14 Alternatives Report, Aerojet will perform such Aerojet  
15 actions and commitments as may be recommended or stated  
16 therein pursuant to Subparagraphs (E)(2) and (E)(3) of this  
17 Exhibit. If Plaintiffs do not approve Aerojet's report, they  
18 shall so notify Aerojet in writing and state in such notice  
19 the reasons for disapproval. If Plaintiffs and Aerojet agree  
20 upon any substitute or supplemental actions or commitments,  
21 Aerojet shall proceed accordingly. Any dispute respecting  
22 the report or any action to be taken or costs to be paid by  
23 Aerojet pursuant thereto shall be resolved pursuant to  
24 Paragraph 20 (Dispute Resolution).

25 (H)(1) If at any time Plaintiffs determine that the  
26 concentration of a detected chemical would pose a threat to  
27 the water supply well users of such a character that the  
28 procedures provided for in this Exhibit do not provide an

1 adequate or timely remedy, Plaintiffs will notify Aerojet and  
2 provide it with an opportunity to carry out Plaintiffs'  
3 proposed response action with respect to the threat. If  
4 Aerojet does not agree to carry out the action, the United  
5 States and the State reserve whatever right they have to take  
6 whatever action they deem necessary, and recover costs  
7 therefor, to protect the water supply well users. Aerojet  
8 will nevertheless continue to perform the activities provided  
9 for in Paragraphs (C) and either (D) or (E) of this Exhibit  
10 with respect to that water supply well.

11 (2) Upon agreement of the parties, Aerojet may  
12 forego the procedures pursuant to Subparagraph (C)(1) and  
13 proceed to Subparagraph (E) and submit a Preliminary Water:  
14 Supply Alternatives Report within a period agreed to by the  
15 parties.

16 (I) Plaintiffs or Aerojet may propose additions or  
17 deletions of chemicals to the list in Exhibit IV-3. If they  
18 cannot agree on any proposed modification to the list, the  
19 dispute shall be resolved pursuant to Paragraph 20 (Dispute  
20 Resolution). The party proposing an addition of a chemical  
21 shall have the burden of proving the need of that chemical  
22 and the party proposing deletion shall have the burden of  
23 proving that it is not needed.

24 (J) Plaintiffs or Aerojet may propose adding to the  
25 list in Exhibit IV-1: (1) a public drinking water well;  
26 (2) a private well in use for drinking water purposes as of  
27 January 1, 1985; or (3) a private well used for drinking  
28 water purposes placed in use after January 1, 1985 in lieu of

1 a well at the same location abandoned after that date.  
2 Plaintiffs or Aerojet may also propose deletion of any water  
3 supply well from the list in Exhibit IV-1. If Plaintiffs and  
4 Aerojet do not agree on an addition or deletion, the dispute  
5 shall be resolved pursuant to Paragraph 20 (Dispute  
6 Resolution). The party proposing an addition of a water  
7 supply well shall have the burden of proving the need of that  
8 well and the party proposing deletion of a water supply well  
9 shall have the burden of proving that it is not needed.

10 (K) The Phase II RI/FS Report to be submitted by  
11 Aerojet under Paragraph 5 of this Decree will address  
12 remedial alternatives appropriate for protection of water  
13 supplies.

EXHIBIT IV-1WATER SUPPLY WELLS

Water supply wells subject to the provisions of  
Paragraph 6 and Exhibit IV:<sup>a</sup>

<u>State Well Number</u>	<u>Owner</u>	<u>Well Designation</u>
9N/7E-16-G1	State of California	Beaches and Parks
9N/6E-26-B2	ACWD <sup>b</sup>	#14 Folsom Blvd.
9N/6E-23-R1	ACWD	#11 Cristobal
9N/6E-25-D2	F-CUSD <sup>c</sup>	Mitchell Junior High School
9N/6E-26-J1	ACWD	#9 McGregor
9N/6E-25-Q2	Private Owner	
9N/6E-25-R1	Private Owner	
8N/6E-1-G1	Private Owner	
9N/6E-36-H1	SWMD <sup>d</sup>	White Rock Well aka Happy Sunrise
8N/7E-6-M1	SWMD	Recycle Well aka Happy Sunrise
8N/7E-8-C1	CUC <sup>e</sup>	Well A
8N/7E-9-K1	CUC	Well #2
8N/7E-2-N1	Private Owner	
9N/7E-36-F1	State of California	Off-Highway Vehicle Park
8N/7E-3-A1	Private Owner	
8N/7E-3-E1	Private Owner	

Except for well 8N/6E-1-G1, which is subject only to Exhibit IV Paragraphs (A) and (B), because it is not currently used as a drinking water supply source.

Arden-Cordova Water District

Folsom-Cordova Unified School District

Sunrise Water Maintenance District

Citizens Utility Company



EXHIBIT IV-2Protocol for Exhibit IV

- (A) The purpose of this protocol is to define a procedure for monitoring water supply wells listed in Exhibit IV-1 for the chemicals listed in Exhibit IV-3. Sample collection and laboratory analysis will be consistent with Aerojet's quality assurance plans then in effect. The procedures in this Exhibit IV-2 will be in effect until superseded by an approved QAPP.
- (B) To collect samples under this program it is necessary that a supply of reagent water, certified by two successive runs through the analytical procedure, be prepared for use as trip blanks. Another necessary condition is that reagents and standards required in the analyses be available and a reagent blank for use with the analytical procedure be determined by two successive runs.
- (C) Water samples will be collected at the well head through fittings installed on the pump discharge line. It will not be considered feasible to take water samples until a suitable sample tap has been installed. In particular, it will not be considered feasible for purposes of verification to collect samples downstream of a pressure tank or at

1 remote locations within a water distribution system.

2  
3 (D) If a well has been pumped continuously since the  
4 prior sampling for which there is a report of a  
5 listed chemical, and if the conditions mentioned  
6 above have been fulfilled, appropriate sample  
7 containers will be filled in rapid succession at  
8 the sample tap. Aerojet will analyze one sample  
9 from each well. A replicate will also be taken as  
10 a backup to be used in the event of accidental loss  
11 of sample or for confirmatory purposes. Pending  
12 delivery to the laboratory, the samples will be  
13 stored in an insulated box cooled by blue ice. All  
14 sample containers will be labeled immediately after  
15 filling and chain-of-custody documents will be  
16 completed at that time. The insulated box will  
17 contain trip blanks of reagent water in the same  
18 type of container used for the well water samples.  
19 The number of trip blanks will be one greater than  
20 the number of samples to be analyzed. One of these  
21 blanks will monitor the complete collection process.

22  
23 (E) If a well has been inactive just prior to sampling,  
24 the pump will be operated a sufficient length of  
25 time to extract five times the calculated volume of  
26 water residing in the bore hole under static  
27 conditions. If the diameter of the well is  
28 unknown, it will be assumed to be eighteen (18)

1 inches, if a public supply well and six (6) inches,  
2 if a private well. After the required volume of  
3 water has been extracted, the samples will be taken  
4 in the same manner as for a continuously pumped  
5 well.

6  
7 (F) At the laboratory, the appropriate analyses will be  
8 performed in this order:

- 9  
10 (1) Laboratory certified pure water  
11 (2) A synthetic sample with known concentration(s)  
12 of the analyte(s) of interest (a standard)  
13 (3) Trip blank

14  
15 If the trip blank that monitors the complete  
16 collection process shows no evidence of  
17 contamination (greater than 20% of the trigger  
18 level, or the detection limit, whichever is  
19 higher), then no further trip blanks will be  
20 run. If contamination is found, Aerojet will  
21 follow the quality assurance plan then in  
22 effect.

- 23  
24 (4) Water sample(s)  
25 (5) Repeat sequence 1,2 and 4  
26  
27  
28

EXHIBIT IV-3

Chemicals subject to the provisions of Paragraph 6 and  
Exhibit IV:

<u>Chemical</u>	<u>Abbreviation</u>	<u>Limits of Detection</u> (ppb)	<u>Trigger Level</u> (ppb)
Chloroform <sup>a</sup>	CHCl <sub>3</sub>	0.5	0.5
1,2-Dichloroethane	1,2-DCA	0.5	1.0
1,1,1-Trichloroethane	1,1,1-TCA	1.0	200.0
Vinyl Chloride	VCl	0.5	2.0
1,1-Dichloroethylene	1,1-DCE	0.5	0.5
Tetrachloroethylene	PCE	0.5	0.5
Trichloroethylene	TCE	0.5	2.5
N-Nitrosodimethylamine <sup>b</sup>	NDMA	0.15	0.15
Phenol <sup>c</sup>		10.0	10.0

For water sources supplying water to a system where chlorination is used for disinfection, the limit of detection for chloroform, for purposes of triggering verification sampling and monthly monitoring, shall be 5.0 parts per billion (ppb). The laboratory detection limit for chloroform, as well as the detection limit for purposes of notification, shall be 0.5 ppb. For sources supplying a chlorinated system which is supplied by 100% well water, the trigger level for chloroform shall be 5 ppb. For sources supplying a chlorinated system in which surface water makes up any part of the flow, the trigger level for chloroform shall be 30 ppb.

Only as to well:

- 8N/7E-8-C1
- 8N/7E-9-K1
- 9N/7E-36-F1
- 8N/7E-3-A1
- 8N/7E-3-E1

Aerojet shall use its best efforts to attain this limit of detection. For purposes of Subparagraph (C)(3) of Exhibit IV, the limit of detection shall be 0.2 ppb.

For all wells in Exhibit IV-1 except those identified in footnote (b) above.

For water sources supplying water to a system where chlorination is not used, the limit of detection shall be 10 ppb and the trigger level shall be 3500 ppb.

EXHIBIT VAMERICAN RIVER

(A) Aerojet will sample the American River and water taken from the American River by the City of Sacramento, Arcade Water District and the Carmichael Water District as set forth in this Exhibit. The City of Sacramento, Arcade Water District and Carmichael Water District are referred to herein collectively as "water purveyors."

(B) Beginning in the first full calendar month after the effective date of the Decree, and in every month thereafter, Aerojet shall submit to Plaintiffs before the first of the following calendar month (subject to the release by the Bureau of Reclamation of this information), the Bureau's monthly forecast of release of water from the Nimbus Dam and the Nimbus Fish Hatchery for that following month and Aerojet's proposed sampling dates for that month based on the Bureau's monthly forecast and the requirements of this Exhibit. The projected flow, as that term is used in this Exhibit, is the anticipated flow at the Sunrise Bridge based on the Bureau's monthly forecast of release of water from Nimbus Dam and the release of water by the Nimbus Fish Hatchery for the month as reported to Aerojet by the Bureau. A sustained projected flow, as that term is used in this Exhibit, is a flow that is projected based on the Bureau's monthly forecast to continue for a period of 3 days or more.

(C) In any calendar month when the flow regime is projected to be below 250 cubic feet per second (cfs) in any

1 day, Aerojet shall sample the American River and the water  
2 purveyor intakes on such day. Notwithstanding, Aerojet shall  
3 not be required to sample in accordance with this  
4 Subparagraph (C) if Aerojet is to undertake sampling pursuant  
5 to this Subparagraph (C) within the prior week.

6 (D) In any week in a calendar month when one or more  
7 sustained projected flows are between 250 cfs and 499 cfs,  
8 Aerojet shall sample the American River and the water  
9 purveyor intakes once in that week and during the period of  
10 lowest sustained projected flow within that regime, but if  
11 the flow regime is projected to continue for more than three  
12 continuous weeks, then Aerojet shall sample in each of the  
13 first three weeks and once per calendar month thereafter ;  
14 until the flow regime changes. Aerojet shall not be required  
15 to sample pursuant to this Subparagraph (D) in any week in  
16 which it is projected to sample pursuant to Subparagraph (C).

17 (E) In any calendar month when one or more sustained  
18 projected flows are between 500 cfs and 999 cfs, Aerojet  
19 shall sample the American River and the water purveyor  
20 intakes once in that month, during the period of lowest  
21 sustained projected flow within that regime, no later than  
22 four days following the beginning of that lowest sustained  
23 projected flow. Aerojet shall not be required to sample  
24 pursuant to this Subparagraph (E) in any month in which it is  
25 projected to sample pursuant to Subparagraph (C) or (D).

26 (F) In the third month in any calendar quarter in which  
27 no sampling would be conducted pursuant to Subparagraph (C),  
28 (D), or (E), Aerojet shall sample the American River and the

1 water purveyor intakes if there occurs in that month one or  
2 more sustained projected flows less than 3000 cfs.

3 (G) Sampling of the American River and water purveyors  
4 intakes pursuant to this Exhibit shall be conducted as  
5 follows:

6 (1) Aerojet shall, using EPA methods 601 and 602,  
7 analyze at least one sample from the American River and at  
8 least one sample from a sampling point after each intake  
9 described in Subparagraph (G)(4) and before distribution.  
10 Aerojet may, at its option, analyze more than one sample.

11 (2) Aerojet shall sample the American River at or  
12 upgradient from the footbridge that is approximately 600 feet  
13 downstream of the Sunrise Bridge to determine representative  
14 chemical concentration of the waters in the river,  
15 considering such factors as river cross-section, projected  
16 flow and dispersion characteristics. At the time of sampling  
17 Aerojet shall record air and water temperature and wind  
18 conditions.

19 (3) Within 30 days after the effective date of  
20 this Decree, Aerojet shall submit a technical report which  
21 will identify the sampling procedures and methods proposed to  
22 be used to sample for the representative chemical  
23 concentration of the water in the river, including the  
24 rationale for the method of conducting future sampling of the  
25 river. Any dispute over the method of obtaining a  
26 representative sample from the river will be resolved  
27 pursuant to Paragraph 20 (Dispute Resolution).

28 (4) The water purveyor intakes to be sampled under

1 this Exhibit are:

2 Carmichael Water District	Landis Collectors
	(Combined flow)
3	Deterding Collector
4 City of Sacramento	E. A. Fairbairn
	Treatment Plant Intake
5 Arcade Water District	Combined Flow of
6	Collector Wells

7 (5) If sampling is required pursuant to  
 8 Subparagraphs (C) or (D) and the intake to be sampled is not  
 9 being operated at the time, then the sample shall be taken  
 10 from the American River at the vicinity of the intake.

11 (6) No sampling under this Exhibit shall be  
 12 required prior to the first calendar month following  
 13 submission of the information specified in Subparagraph (B).

14 (7) Aerojet shall notify Plaintiffs and water  
 15 purveyors of the results of the analysis of such sampling no  
 16 later than 15 days after completion of collection of the  
 17 samples.

18 (8) Aerojet shall notify Plaintiffs and water  
 19 purveyors of preliminary trichloroethylene (TCE) results from  
 20 sampling pursuant to Subparagraph (C) and (D) within 24 hours  
 21 of completion of collection of the samples.

22 (9) If Plaintiffs, based on communications with  
 23 the Bureau, learn that flow in the river will be below 500  
 24 cfs, which flow was not identified in the monthly forecast,  
 25 then Plaintiffs may notify Aerojet of such anticipated flow  
 26 and period of time of such flow. Such notification shall be  
 27 in writing, or if orally, it shall be confirmed by receipt of  
 28 writing within five days of oral notice. Upon receipt of



1 such notice, Aerojet will perform its sampling pursuant to  
2 Subparagraph (C) or (D) as appropriate for the month, except  
3 (a) if confirmation with the Bureau indicates modifications  
4 are not necessary, or (b) if sampling would be required  
5 within the first ten days following receipt of notice from  
6 Plaintiffs.

7 (H) Aerojet shall prepare a Preliminary Report on  
8 Evaluation of Source as to a water purveyor intake if the  
9 concentration of TCE sampled in the intake or in the vicinity  
10 of the intake by Aerojet pursuant to this Exhibit is greater  
11 than 2.8 ppb and if concurrent Aerojet sampling of the  
12 American River pursuant to Subparagraph (G)(2) shows the  
13 presence of TCE in at least as great a concentration. The  
14 Preliminary Report on Evaluation of Source shall be submitted  
15 within 45 days after notice of sampling results pursuant to  
16 Subparagraph (G)(7).

17 (I) The Preliminary Report on Evaluation of Source  
18 shall set forth Aerojet's preliminary evaluation as to  
19 whether the measurement in excess of 2.8 ppb was valid, and,  
20 if so, whether the source of the TCE in excess of 2.8 ppb at  
21 the water purveyor intake is from TCE migrating in ground  
22 water from the Aerojet Site or not, and what field activities  
23 and supporting analytical work, if any, remain to be  
24 undertaken to complete the evaluation and a schedule for  
25 completion. The Preliminary Report on Evaluation of Source  
26 shall be submitted to Plaintiffs for approval as to the  
27 appropriateness of and schedule for field activities and  
28 supporting analytical work. Any dispute as to the

1 Preliminary Report on Evaluation of Source will be resolved  
2 pursuant to Paragraph 20 (Dispute Resolution), except  
3 Aerojet's conclusion as to source shall not be subject to  
4 dispute and the parties reserve all rights as to  
5 responsibility for any exceedance.

6 (J) In accordance with the approved schedule, Aerojet  
7 shall complete the evaluation described in Subparagraph (I),  
8 and submit a Final Report on Evaluation of Source. That  
9 report shall set forth the results of the field activities  
10 and supporting analytical work undertaken and Aerojet's  
11 conclusion as to whether the measured exceedance was  
12 representative of chemical concentrations in the river and in  
13 the intake, and if so, whether the source of the TCE in  
14 excess of 2.8 ppb in the water purveyor intake is from TCE  
15 migrating in ground water from the Aerojet site or not. The  
16 Final Report on Evaluation of Source shall not be subject to  
17 dispute and the parties reserve all rights as to  
18 responsibility and need for action as to any exceedance.

19 (K) Aerojet shall confirm in writing within five days  
20 any notice by telephone of monitoring results pursuant to  
21 this Exhibit. Aerojet shall notify water purveyors of  
22 monitoring results and shall make available copies of the  
23 Preliminary and Final Reports on Evaluation of Source within  
24 the time limits for providing same to Plaintiffs under this  
25 Exhibit.

26 (L) Notwithstanding the provisions of this Exhibit on  
27 sampling, Aerojet shall not be obligated to sample an intake  
28 (or in the vicinity of the intake) if Aerojet receives

1 written notice from the water purveyor that sampling is not  
2 desired at the water purveyor's intake. Upon receipt of  
3 written notice from a water purveyor that sampling is again  
4 desired, Aerojet shall again be obligated to undertake  
5 sampling of the water purveyor's intake pursuant to this  
6 Exhibit. Aerojet shall not be obligated to sample the  
7 American River pursuant to this Exhibit during the period  
8 when all the water purveyors have given written notice that  
9 sampling is not desired at their respective intakes.

10 (M) If at any time Plaintiffs determine that the  
11 concentration of a detected chemical would pose a threat to  
12 the users of water from the water purveyor intakes of such a  
13 character that the procedures provided for in this Exhibit do  
14 not provide an adequate or timely response, Plaintiffs will  
15 notify Aerojet and provide it with an opportunity to carry  
16 out Plaintiffs' proposed response action with respect to the  
17 threat. If Aerojet does not agree to carry out the action,  
18 the United States and the State reserve whatever right they  
19 have to take whatever action they deem necessary, and  
20 recovery costs therefor, to protect the water supply users.  
21 Aerojet will nevertheless continue to perform the activities  
22 provided for in this Exhibit.

EXHIBIT VI  
GET FACILITIES

(A) Aerojet has constructed and operated and continues to construct and operate ground water extraction/treatment facilities, referred to in this Decree as GET Facilities. Aerojet's purpose in operating these facilities is to intercept the offsite migration of plumes of chemicals within ground water near the periphery of and/or beneath the Aerojet-General Operating Plant and to extract and treat the ground water.

Aerojet's GET Facilities include:

- (1) Wells to extract ground water;
- (2) Treatment facilities;
- (3) Wells or surface application to return treated water to the regional aquifer; and
- (4) Wells to monitor drawdown and water quality.

(B) (1) Aerojet will design, construct and operate in accordance with best engineering practices and with due diligence to intercept plumes of chemicals and to extract and treat the ground water the GET Facilities depicted in Exhibits VI-1 through VI-6, modifications to facilities depicted in Exhibits VI-7 and VI-8, and changes to such facilities pursuant to Subparagraph (C) to this Exhibit.

(2) Unless otherwise approved, Aerojet will not discharge from any facility specified in Subparagraph (B)(1) water with concentrations of chemicals in excess of the following limits:

<u>Chemical</u>	<u>Monthly Average</u>	<u>24-Hour Maximum</u>
Trichloroethylene	2.0	4.0
Tetrachloroethylene	2.0	4.0
1,1,1-Trichloroethane	2.0	4.0
Trichlorotrifluoroethane	2.0	4.0
1,1-Dichloroethylene	2.0	4.0
Trans,-1,2-Dichloroethylene	2.0	4.0
1,2-Dichloroethane	1.0	2.0
Chloroform	5.0	10.0
Vinyl Chloride	1.0	2.0
N-Nitrosodimethylamine	1.0	2.0

Concentrations are in units of micrograms per liter (ug/l). Values reported as "less than" the detection limit (which shall be no greater than 1.0 ug/l or a lesser number if so analyzed by Aerojet) shall equal zero for purposes of computing a time-weighted monthly average. The monthly average will be based on a minimum of one sample per week. The 24-hour maximum will be based on either a single sample or, at the option of Aerojet, the arithmetic mean of multiple samples collected during the 24-hour period and analyzed.

(3) Aerojet will comply with the discharge limitations specified in (B)(2) in accordance with the following schedule:

<u>Facility</u>	<u>Date upon which Discharge Limitations are in effect</u>
GET D (Exhibit VI-1)	Effective Date of Decree
GET E (Exhibit VI-2)	Effective Date of Decree
GET F South (Exhibit VI-3)	Effective Date of Decree
GET F North (Exhibit VI-4)	Effective Date of Decree
GET A (Exhibit VI-5)	September 1, 1990
GET B (Exhibit VI-6)	September 1, 1990

(a) A discharge limitation is exceeded (1) when a facility is operating with changes approved pursuant to Subparagraph (C)(2)(a) or with modifications depicted in Exhibits VI-7 and VI-8 and is not in full scale operation or (2) when implementation of such modification or change to the GET facility affects the operation of the treatment facility. "Full Scale Operation" is defined as routine operation of a facility which occurs only after the conclusion of startup and testing operations and the completion of any modifications or adjustments required as a result of the start up and testing operations during a period of development.

Aerojet shall propose a date for commencement of full scale operation in its notification of the change to Plaintiffs for changes pursuant to (C)(2)(a) and in the Facility Reports pursuant to (E)(4)(a) for modifications depicted in Exhibits VI-7 and VI-8 and shall propose any alterations in the method or operation of treatment during implementation of the change or modification and the proposed period for such altered treatment. Any dispute regarding the time when a facility is or should be in full scale operation or regarding the nature or period of such altered treatment during implementation will be resolved pursuant to

1 Paragraph 20 (Dispute Resolution), and such facility shall  
2 not be deemed in full scale operation until after resolved as  
3 such pursuant to Paragraph 20 (Dispute Resolution).

4 (b) A discharge limitation is exceeded  
5 because the operational treatment capability as defined in  
6 the Facility Report submitted pursuant to Subparagraph (E) is  
7 exceeded during full scale operation when operating according  
8 to best engineering practices. Aerojet shall notify  
9 Plaintiffs in writing that an exceedance occurred for which  
10 Aerojet believes this exception applies. Such notification  
11 shall be made no later than concurrently with the submission  
12 of monitoring data of the event by Aerojet pursuant to  
13 Paragraph 18 (G). Within thirty (30) days of such written  
14 notification, Aerojet shall submit in writing Aerojet's basis  
15 for its conclusion that this exception applies.

16 (c) A discharge limitation is exceeded during  
17 maintenance of the facility conducted in accordance with  
18 Subparagraph E(1)(h) or E(2)(b).

19 (5) Either Aerojet or Plaintiffs may propose, (1)  
20 additions or deletions of chemicals to the list in  
21 Subparagraph (B)(2), or (2) changes to the concentration  
22 limits for any chemical listed in Subparagraph (B)(2)  
23 consistent with the purposes of the Decree. If the parties  
24 cannot agree on any such proposed modification and the  
25 modification would not result in a new facility as defined in  
26 Subparagraph (D)(2) or change to existing facilities as  
27 defined in Subparagraph (C)(2)(a), then the dispute shall be  
28 resolved pursuant to Paragraph 20 (Dispute Resolution). The

1 party proposing the modification shall have the burden of  
2 proving the need for the modification. If the parties cannot  
3 agree on the extent of changes to existing facilities  
4 pursuant to Subparagraph (C)(2)(a) necessary to treat  
5 chemicals to the proposed concentrations, then each party  
6 reserves its respective rights and this Decree will not  
7 resolve the dispute. Proposed changes amounting to a new  
8 facility are governed by Subparagraph (D).

9 (C) Pursuant to this Subparagraph, Aerojet may decide  
10 to make changes in the design, composition, and/or operation  
11 of existing GET Facilities not amounting to a new facility.

12 (1) Except as provided in Subparagraph (C)(2),  
13 Aerojet may make any changes as it deems appropriate in  
14 accordance with best engineering practices to intercept  
15 plumes of chemicals, to extract and treat ground water, and  
16 to discharge water in compliance with the concentration  
17 limits in Subparagraph (B)(2).

18 (2)(a) Aerojet will notify and obtain approval  
19 from Plaintiffs prior to any changes in the design,  
20 composition, or operation of the GET Facilities not provided  
21 for in a Facility Report already submitted and which  
22 materially affects: (1) the concentration of chemicals in  
23 treated ground water, (2) volumes and rates of ground water  
24 extracted, treated, and returned, (3) locations where ground  
25 water is extracted from or returned to the regional aquifer,  
26 or (4) emission rates of chemicals to air. If Plaintiffs  
27 dispute the material change proposed, the appropriateness of  
28 Aerojet's proposed change will be resolved pursuant to



1 Paragraph 20 (Dispute Resolution).

2 (b) Based on the exigencies of the situation,  
3 Aerojet may notify Plaintiffs orally of a material change and  
4 seek Plaintiffs' approval within a specified period of time.  
5 If Plaintiffs do not approve the request, Aerojet may proceed  
6 with the change subject to Plaintiffs' subsequent disapproval  
7 of the unapproved change. If Plaintiffs disapprove the  
8 change, the appropriateness of Aerojet's proposed change will  
9 be resolved pursuant to Paragraph 20 (Dispute Resolution).  
10 All oral communications regarding changes to GET Facilities  
11 shall be confirmed in writing within five (5) days.

12 (D) (1) Should Aerojet propose to install a new  
13 facility, Aerojet shall prepare and submit an operable unit  
14 feasibility study respecting such proposed facility. The  
15 operable unit feasibility study shall be subject to public  
16 comment and to approval as to adequacy and completeness.

17 (2) A new facility is a facility that (a) is to  
18 intercept an as yet untreated plume, or (b) is to treat one  
19 or more chemicals in a plume currently being treated by an  
20 existing facility through use of a different method of  
21 treatment of the ground water than existing at the current  
22 facility.

23 (3) The parties shall negotiate in good faith to  
24 reach agreement on the selection of an operable unit. If the  
25 parties do not reach agreement, then each party reserves its  
26 respective rights and this Decree does not resolve the  
27 dispute.

28 (E) Aerojet will submit to Plaintiffs Facility Reports

1 as stated below.

2 (1) For the facilities depicted in Exhibits VI-1,  
3 VI-2, VI-3, VI-4 (GET D,E,F South, F North) and, as  
4 appropriate for modifications depicted in Exh. VI-7 and VI-8,  
5 Facility Reports shall contain the following information:

6 (a) As-built schematic drawings for the GET  
7 Facilities showing process units, piping, flow directions,  
8 and influent, effluent, and intermediate monitoring locations  
9 within the facility. The hydraulic capacity and expected  
10 normal flow and pumping rates shall also be reported;

11 (b) List of unique identification numbers  
12 assigned to each major component of the GET Facility;

13 (c) Design, extraction or recharge rates for  
14 each well used as an extraction or recharge well;

15 (d) A listing of the chemicals to be treated  
16 and a description of the treatment process employed;

17 (e) A listing of any substance identified in  
18 sampling of the influent to the treatment facility and not  
19 specifically intended to be removed by the treatment process;

20 (f) Design and operational treatment  
21 capability for the facility, addressing, as appropriate,  
22 start-up and testing, development and full scale operation;

23 (g) Measurements and estimates of anticipated  
24 emission rates of all chemicals listed in Subparagraphs  
25 (E)(1)(d) and (E)(1)(e) of this Exhibit from each GET  
26 Facility to the ambient air; and

27 (h) An operating plan for the GET Facilities  
28 which will define normal operating parameters and anticipated

1 operating parameters during operation that is not at full  
2 scale, including provision for reductions or suspension of  
3 operation of GET Facilities in accordance with maintenance  
4 needs.

5 (i) Estimated proposed date of start-up and  
6 testing and proposed period until commencement of full-scale  
7 operation for modifications depicted in Exh. VI-7 and VI-8.

8 (2) For the facilities depicted in Exhibit VI-5  
9 and VI-6 (GET A and B), Facility Reports for the Development  
10 Period shall contain the following information:

11 (a) Information specified in Subparagraph  
12 (E)(1)(a) through (g);

13 (b) An operating plan which will define the  
14 plan of operation, testing and experimentation during the  
15 Development Period;

16 (c) A monitoring plan identifying monitoring  
17 to be conducted in addition to that required by Subparagraph  
18 (F)(1) as appropriate to complete the Development Report  
19 pursuant to Subparagraph (E)(3);

20 (d) A proposed schedule of progress reports  
21 during the Development Period. The information required  
22 pursuant to Subparagraphs (2)(b)(c) and (d) of the Facility  
23 Report shall be known as the Development Proposal.

24 (3) The Development Proposal shall result in a  
25 Development Report, which shall:

26 (a) Evaluate the performance of the facility  
27 in meeting chloroform and NDMA discharge limitations during  
28 chlorination for algae control and evaluate alternative

1 methods to control algae. If chlorine will be used for algae  
2 control following the Development Period:

3 (i) Aerojet will evaluate the minimum  
4 amount of chlorine necessary to control algae in order to  
5 maintain water clarity for treatment of NDMA, the observed  
6 amount and concentration of chloroform produced as a  
7 by-product of chlorination, and the relationship between  
8 chlorination, chloroform production, and NDMA treatment;

9 (ii) Aerojet will measure the amount of  
10 chlorine or other chemicals applied for algae control, and  
11 will sample nonchlorinated ground water and treated ground  
12 water effluent for analysis of chloroform and NDMA;

13 (b) evaluate the performance of the  
14 facilities under varying conditions of solar intensity

15 (i) Aerojet will evaluate the  
16 relationship between solar radiation and NDMA treatment, the  
17 observed effect of any reduced rates of extraction on the  
18 hydraulic control of the plume being treated, and the effect  
19 on ground water hydrology of the discharge of treated ground  
20 water upgradient from the zones of capture.

21 (ii) Aerojet will measure rates of  
22 extraction, pond retention time, solar radiation, and rate  
23 and volume of upgradient discharge, and will sample influent  
24 and treated ground water for analysis of NDMA.

25 (4) Aerojet will submit the following reports:

26 (a) Facility Reports under (E)(1) within 30  
27 days of the effective date of the Decree;

28 (b) Facility Reports under (E)(2) within 30

1 days of the effective date of the Decree;

2 (c) Development Report under (E)(3) no later  
3 than November 1, 1990;

4 (d) Revised Facility Report, for facility  
5 changes pursuant to Subparagraph (C)(2) and, to the extent  
6 not already provided in the Facility Report pursuant to  
7 Subparagraph (E)(1), for modifications depicted in  
8 Exhibits VI-7 and VI-8 within 60 days of commencing full  
9 scale operation of the changed or modified facilities;

10 (e) Revisions to Facility Reports for GET A  
11 and GET B Facilities within 90 days of completion of the  
12 Development Period.

13 (F) Aerojet will submit to Plaintiffs monitoring plans  
14 for the GET Facilities described in Subparagraph (B) of this  
15 Exhibit. Aerojet will submit a monitoring plan for a GET  
16 Facility concurrently with the submission of the  
17 corresponding Facility Report for the GET Facility and will  
18 submit any revisions to the monitoring plan when a revised  
19 Facility Report is submitted.

20 (1) Monitoring plans shall provide for the  
21 monitoring of:

22 (a) Extraction wells:

23 (i) monthly for chemicals identified in  
24 Subparagraph (E)(1)(d) of this Exhibit;

25 (ii) daily (business days) for total flow  
26  
27  
28

1 (iii) weekly for water level elevations.

2 (b) Water level monitoring wells:

3 (i) quarterly for water level elevations.

4 (c) Water quality monitoring wells:

5 (i) quarterly for chemicals identified

6 in Paragraph (E)(1)(d) of this Exhibit;

7 (ii) quarterly for water level elevation.

8 (d) Treatment facility effluent:

9 (i) daily (business days) for total flow;

10 (ii) weekly for chemicals identified in

11 Subparagraph (E)(1)(d) of this Exhibit; and

12 (iii) for such chemicals as are identified

13 in Subparagraph (E)(1)(e) of this Exhibit, at such

14 frequencies as are proposed by Aerojet and approved by

15 Plaintiffs or, if the parties fail to agree, as are resolved

16 pursuant to Paragraph 20 (Dispute Resolution).

17 (e) Recharge wells:

18 (i) weekly for total flow.

19 (2) Within 60 days after the effective date of

20 this Decree, Aerojet shall submit plans for monitoring

21 facilities during the Developmental Period, which plans shall

22 be in addition to the monitoring plans in Subparagraph (F)(1)

23 and which shall comply with Subparagraph (E)(3).

24 (3) A monitoring plan previously approved by

25 Plaintiffs may be amended by agreement of Plaintiffs and

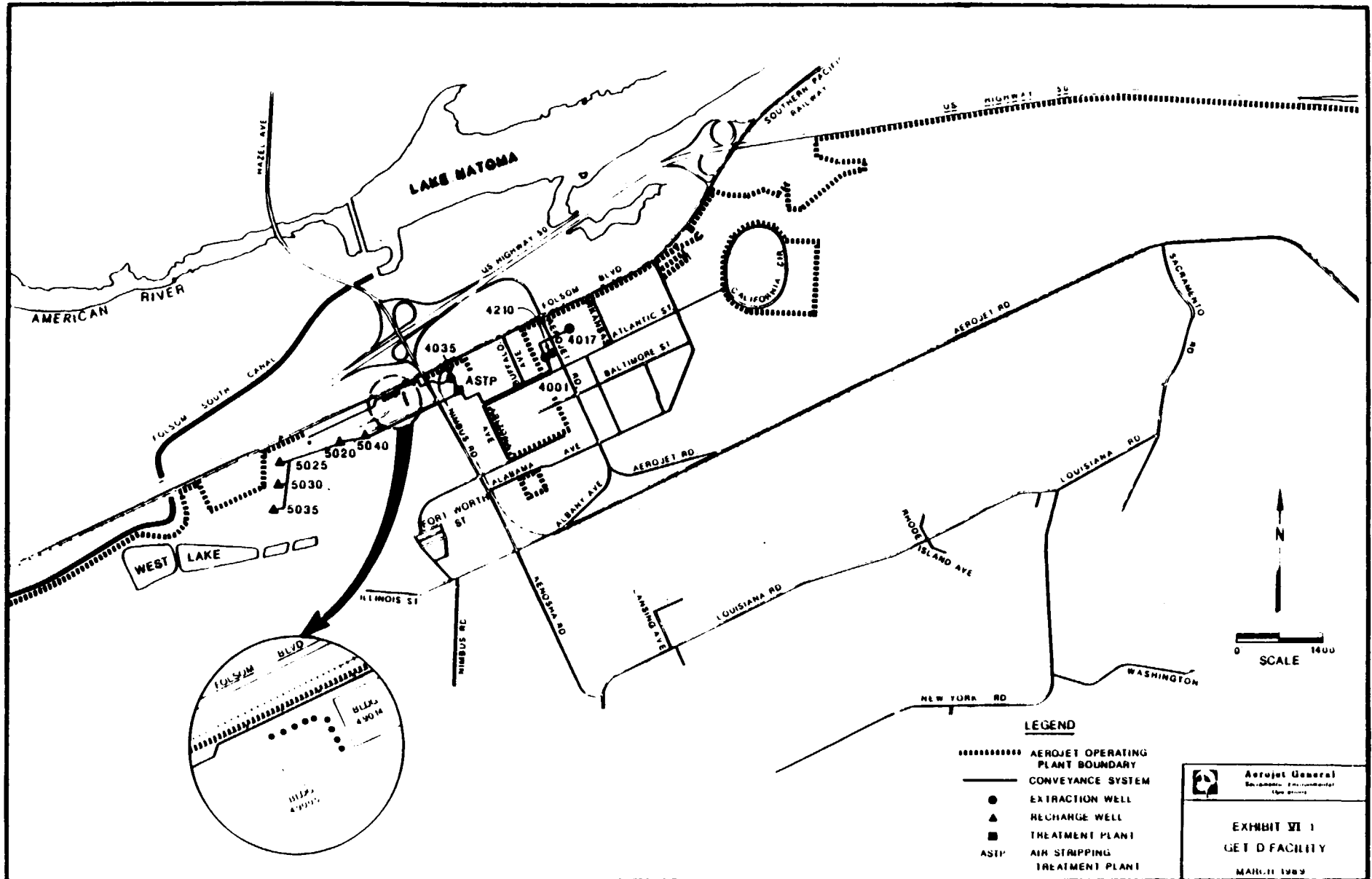
26 Aerojet. If, as an amendment to a monitoring plan or as a

27 condition of approval of Aerojet's monitoring plan,

28 Plaintiffs propose monitoring of additional wells, such

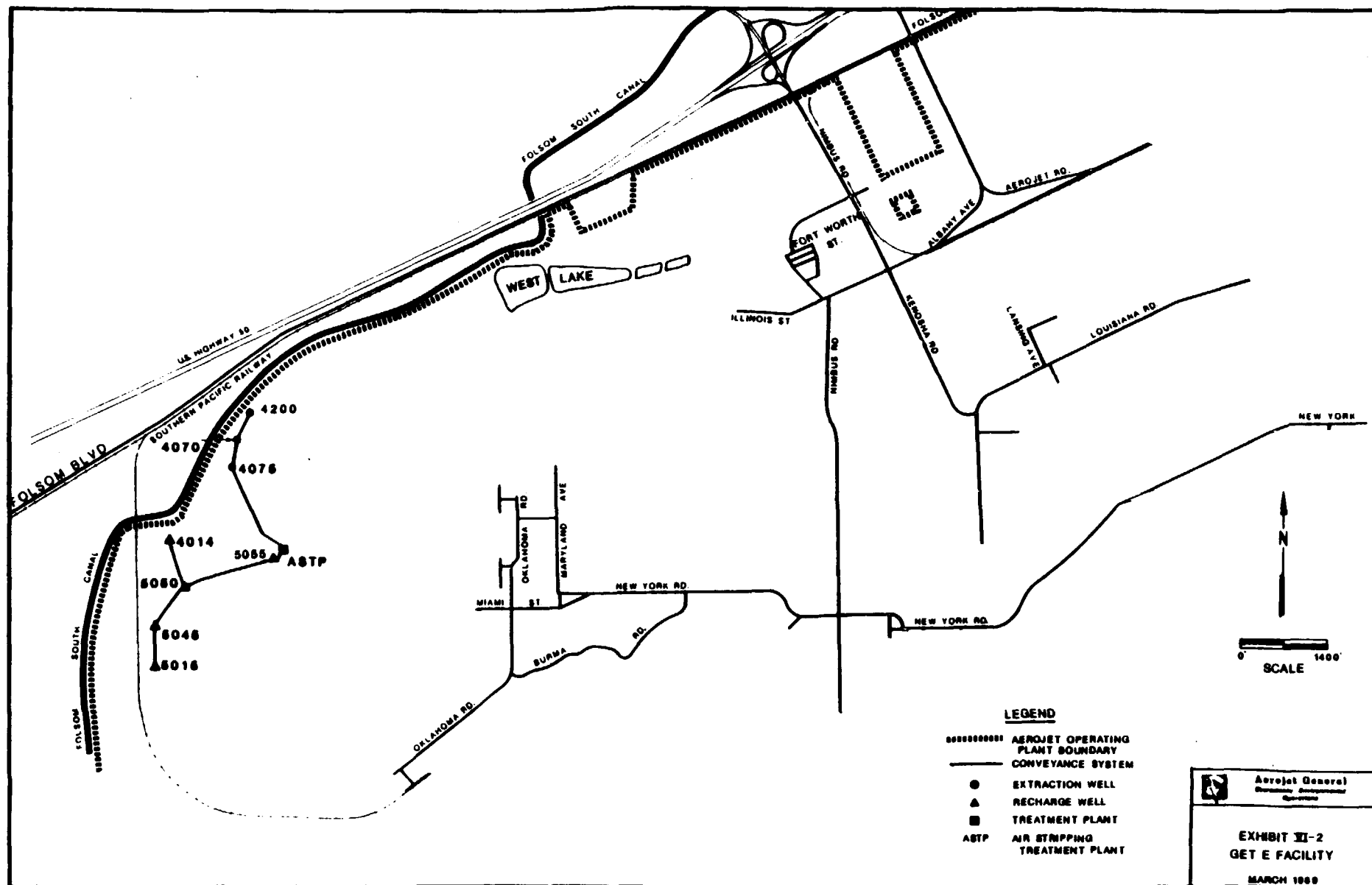
1 proposal will include only wells which are owned or can be  
2 monitored by Aerojet. If the parties cannot agree on the  
3 original plan or on the amendment, the dispute shall be  
4 resolved pursuant to Paragraph 20 (Dispute Resolution).

5 (G) Aerojet will monitor the facilities operated  
6 pursuant to this Exhibit according to the monitoring plans  
7 approved pursuant to Paragraph (F) of this Exhibit and shall  
8 submit the resulting data pursuant to Paragraph 18(G).

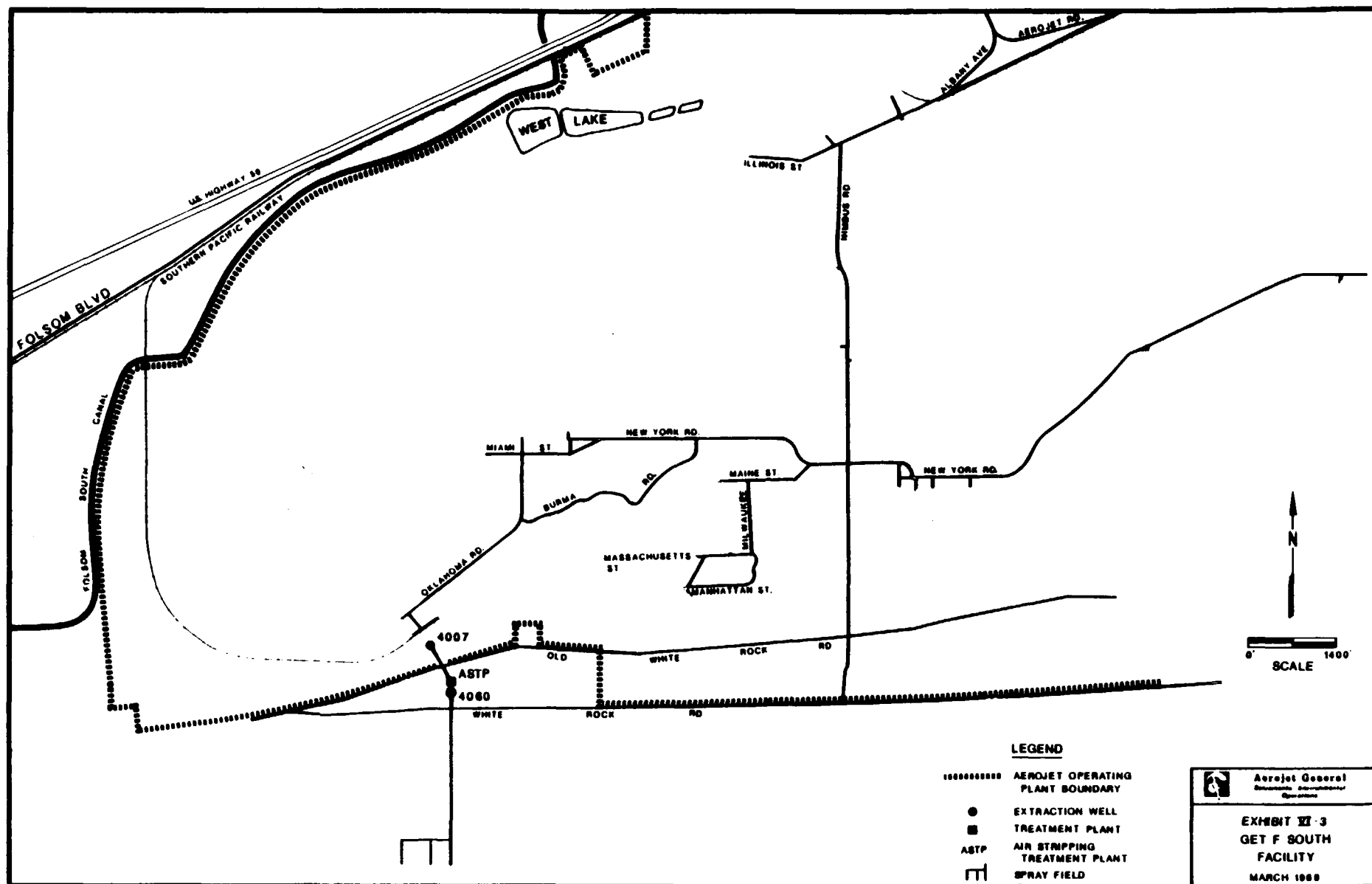


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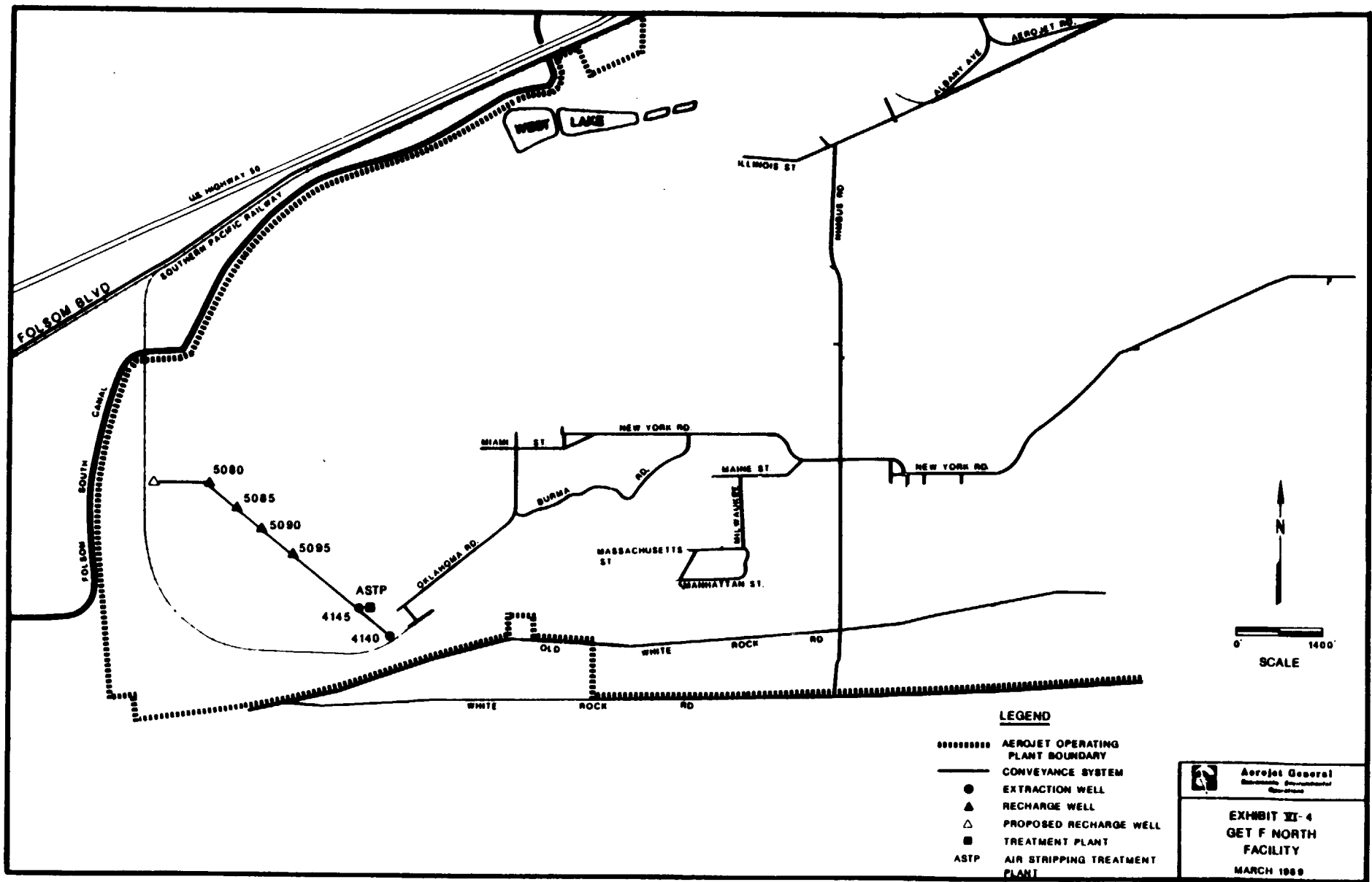




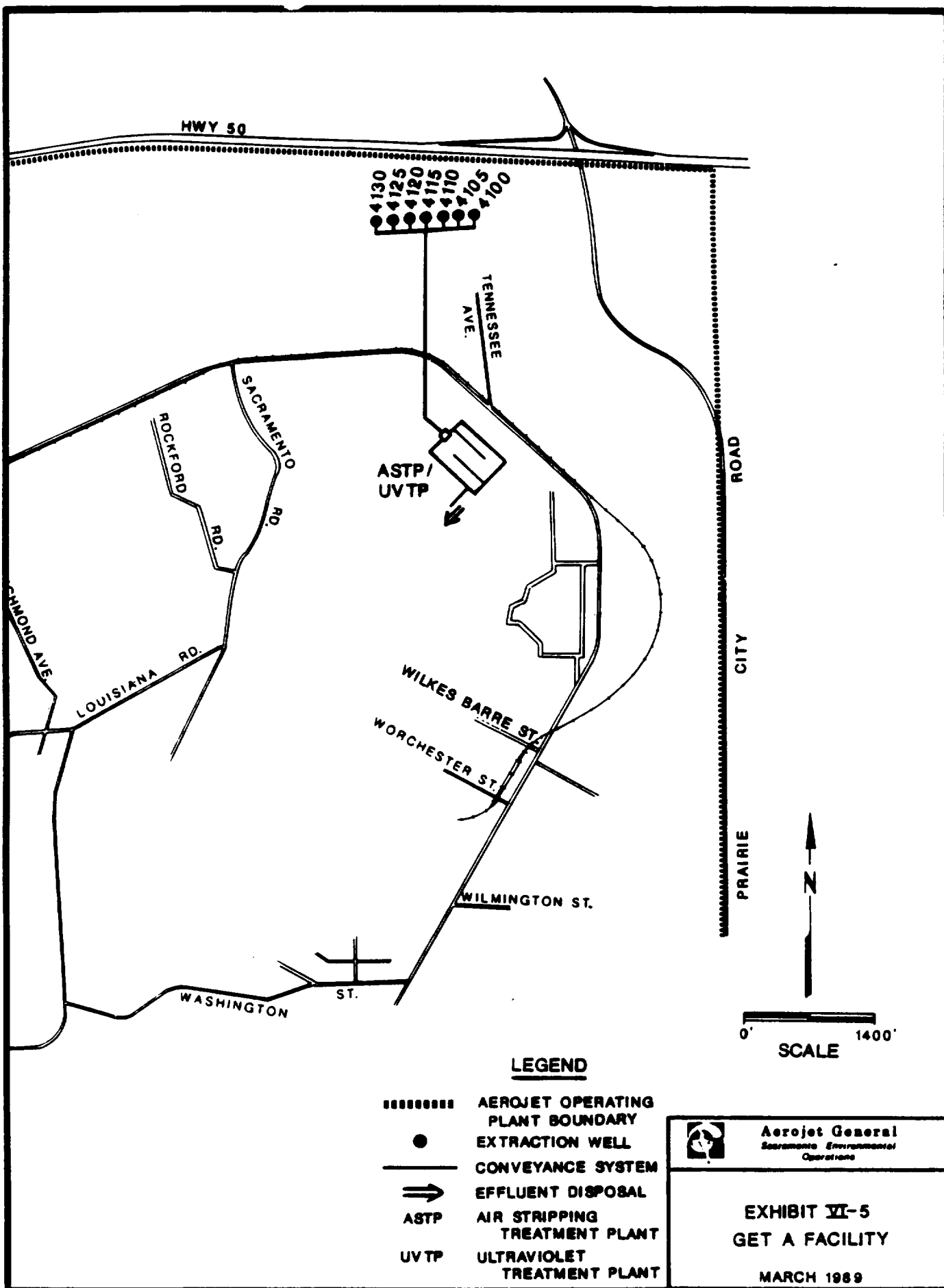
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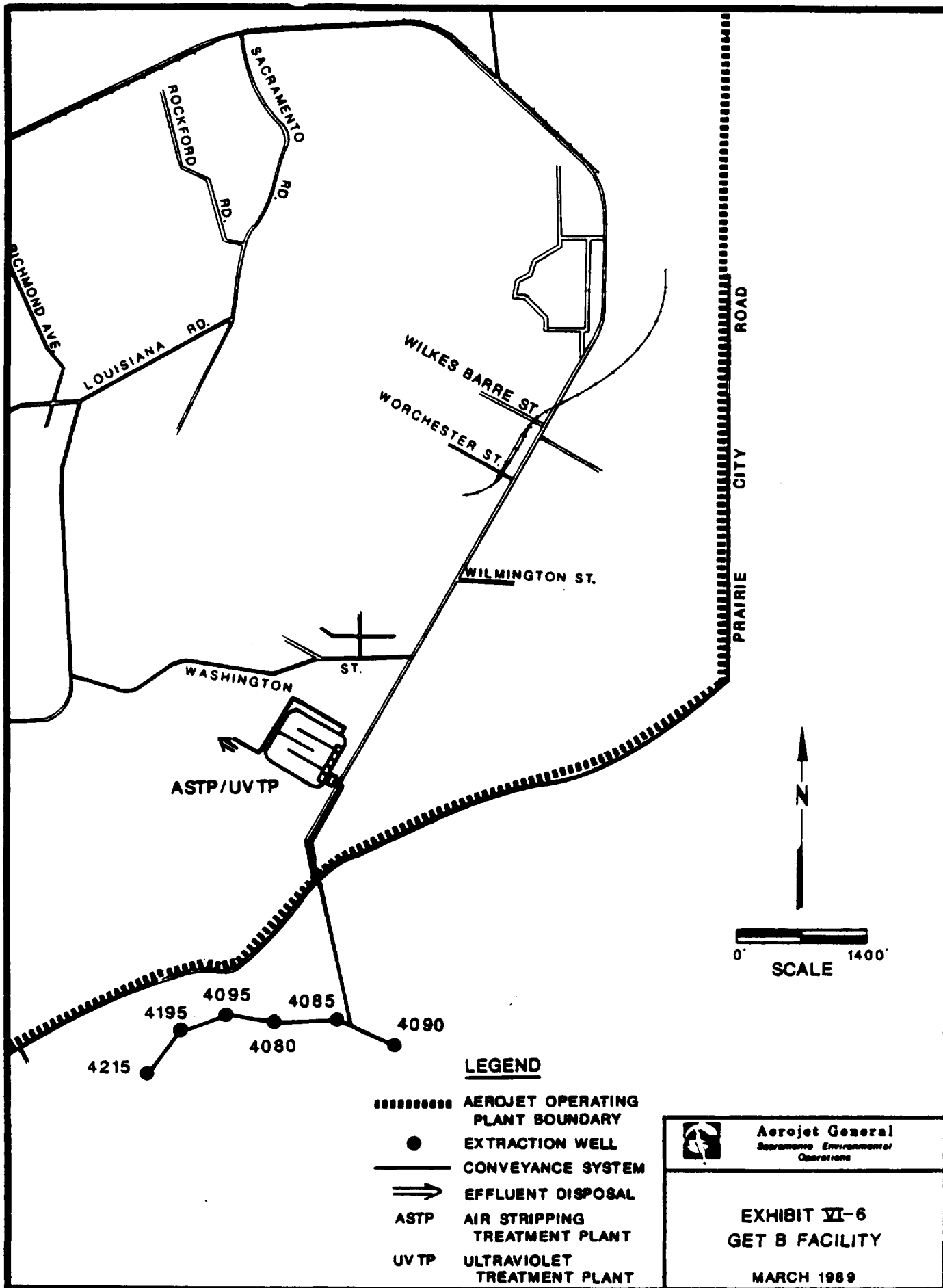
- AEROJET OPERATING PLANT BOUNDARY
- EXTRACTION WELL
- CONVEYANCE SYSTEM
- ⇒ EFFLUENT DISPOSAL
- ASTP AIR STRIPPING TREATMENT PLANT
- UVTP ULTRAVIOLET TREATMENT PLANT

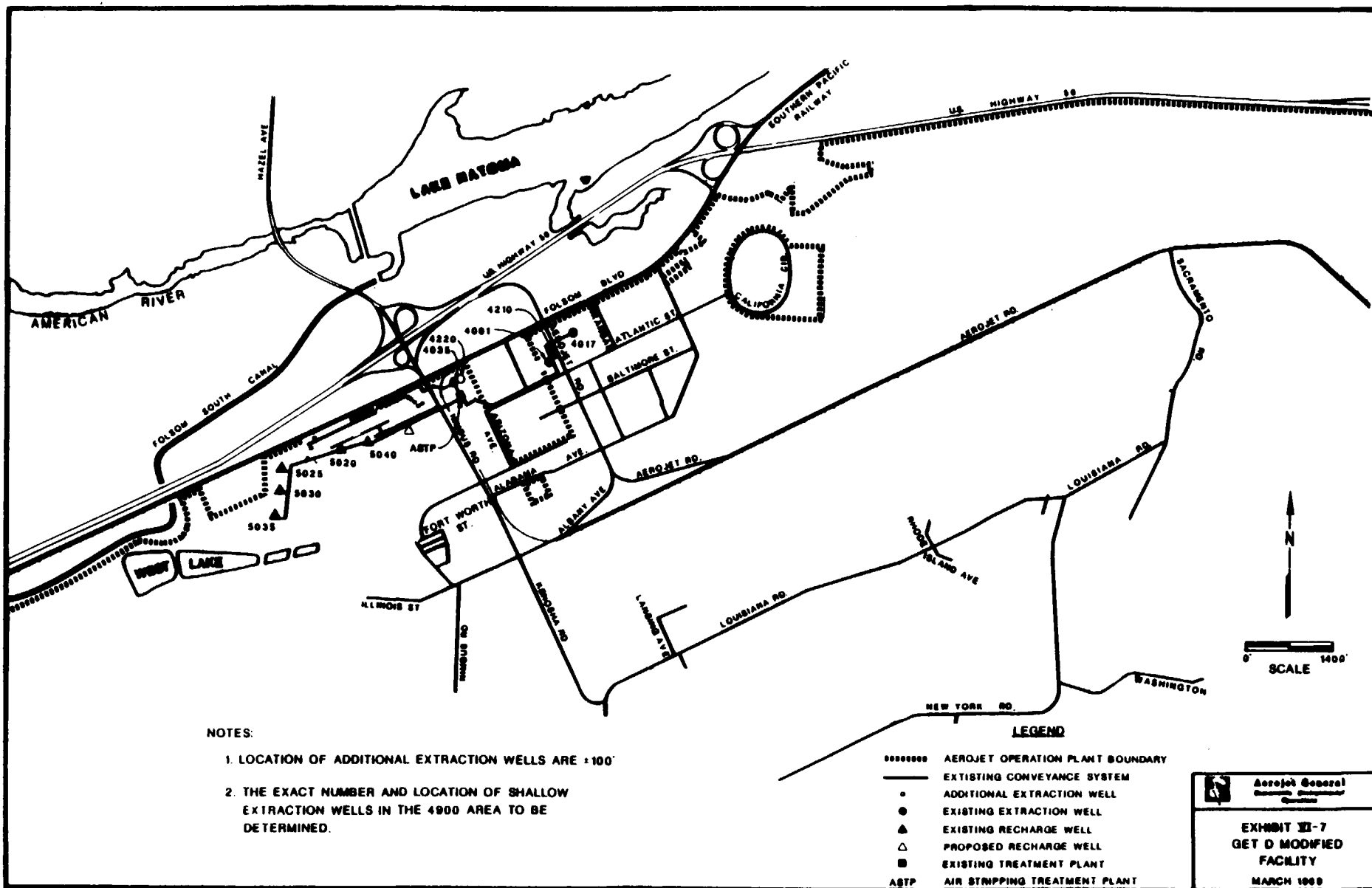


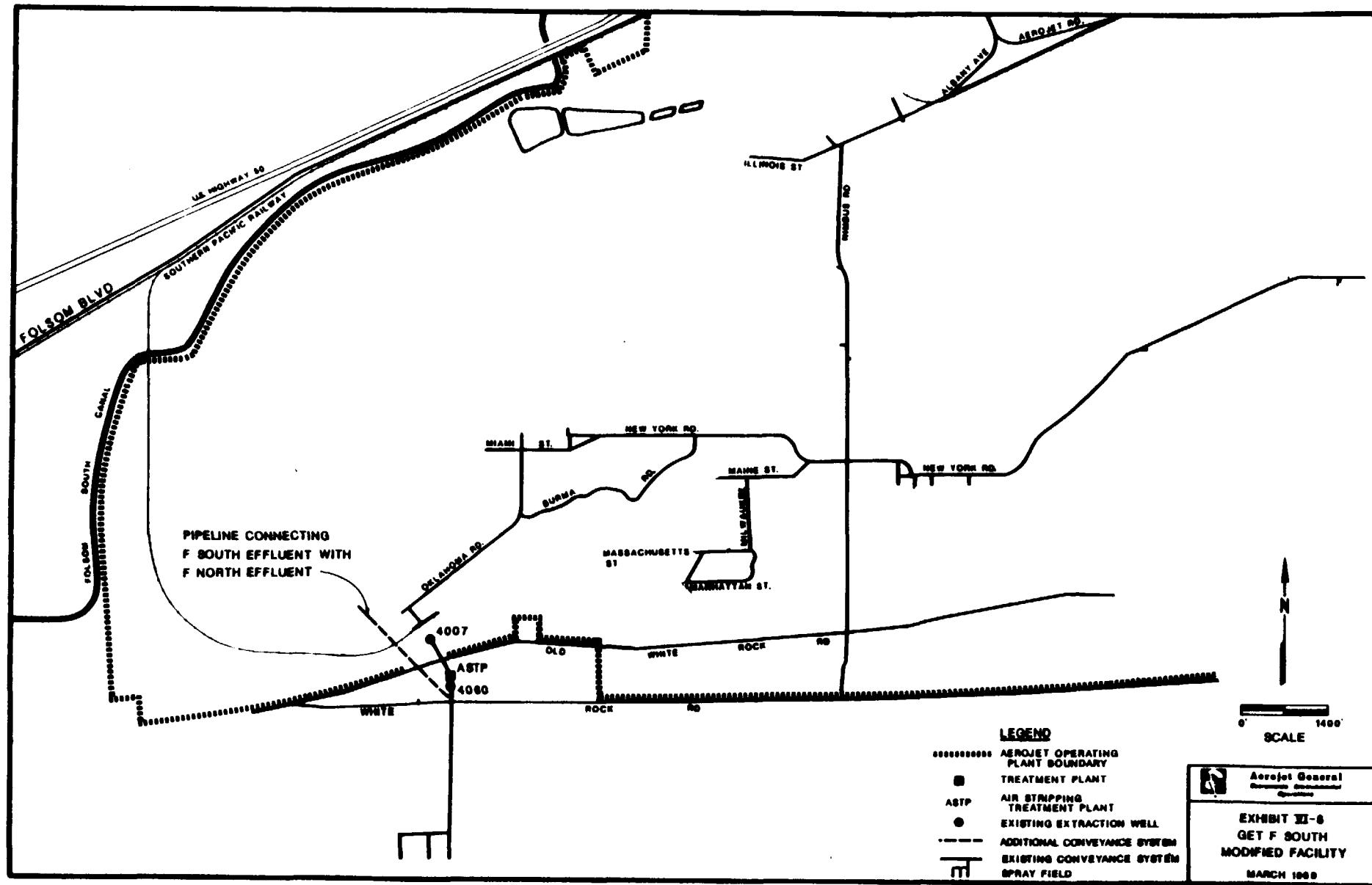
**Aerojet General**  
 Sacramento Environmental  
 Operations

**EXHIBIT VI-5**  
**GET A FACILITY**

MARCH 1989







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EXHIBIT VIIGuarantee

THIS GUARANTEE is made this \_\_\_\_\_ day of \_\_\_\_\_, 198\_\_ by GenCorp Inc., an Ohio corporation (the "Guarantor") in favor of the United States, and is a guarantee of performance by Aerojet-General Corporation, an Ohio corporation, and Cordova Chemical Company, a California corporation (collectively, "Aerojet"), of certain obligations of Aerojet under a partial consent decree (the "Decree") in actions filed in the United States District Court for the Eastern District of California, Civil Action Nos. CIVS-86-0063-EJG and CIVS-86-0064-EJG (consolidated).

In consideration of the Plaintiffs' consent to the Decree, Guarantor hereby agrees with the United States as follows:

1. Guarantor hereby guarantees to the United States that if the United States District Court for the Eastern District of California (the "Court") should find upon application of either Plaintiff that in that action Aerojet or any successor, due to its insolvency or like financial condition, cannot perform or cause to be performed its obligations pursuant to the Decree (the "Guaranteed Obligations"), then Guarantor shall, within sixty (60) days after demand therefor is made by the Plaintiffs, make available all funds required for the performance of the Guaranteed Obligations as the same shall become due from time to time, up to the maximum aggregate amount of Twenty Million Dollars (\$20,000,000). The maximum aggregate amount for

1 which Guarantor may be liable hereunder, reduced by the  
 2 aggregate amount of any payments previously made by the  
 3 Guarantor under this Guarantee, is hereinafter called the  
 4 "Guaranteed Amount."

5 2. This Guarantee shall continue in effect so long as  
 6 the Guaranteed Amount is greater than zero and any of the  
 7 Guaranteed Obligations remain to be performed, unless  
 8 terminated by agreement of the United States and Guarantor or  
 9 pursuant to the Decree.

10 3. This Guarantee shall bind and inure to the benefit  
 11 of the United States and Guarantor and their respective  
 12 successors.

13 4. This Guarantee may be amended or modified only by  
 14 express written agreement of the United States and Guarantor.

15 5. Guarantor consents to the jurisdiction of the Court  
 16 for the sole purpose of any action that may be commenced by  
 17 the Plaintiffs to enforce this Guarantee or modify this  
 18 Guarantee to the extent provided for herein.

19  
 20 GenCorp, Inc.

21 By \_\_\_\_\_

22 Its \_\_\_\_\_

23  
 24 Accepted and Agreed:

25 UNITED STATES

26 By \_\_\_\_\_

27 Its \_\_\_\_\_